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August 24, 2005

BY OVERNIGHT DELIVERY AND E-FILE

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station
Boston, MA 02110

Re: Bay State Gas Company, D.T.E. 05-27

Dear Ms. Cottrell:

Enclosed for filing, on behalf of Bay State Gas Company ("Bay State"), please find Bay State's responses to the following Record Requests:

From the Attorney General:

| | | | |
|----------|----------|----------|----------|
| RR-AG-72 | RR-AG-77 | RR-AG-78 | RR-AG-92 |
| RR-AG-96 | RR-AG-98 | | |

From the Department:

| | |
|------------|------------|
| RR-DTE-153 | RR-DTE-167 |
|------------|------------|

From the USWA:

| | | |
|--------------------|------------|------------|
| RR-USWA-10 (Supp.) | RR-USWA-11 | RR-USWA-13 |
|--------------------|------------|------------|

Please do not hesitate to telephone me with any questions whatsoever.

Very truly yours,

Patricia M. French

cc: Per Ground Rules Memorandum issued June 13, 2005:

Paul E. Osborne, Assistant Director – Rates and Rev. Requirements Div. (1 copy)

A. John Sullivan, Rates and Rev. Requirements Div. (4 copies)

Andreas Thanos, Assistant Director, Gas Division (1 copy)

Alexander Cochis, Assistant Attorney General (4 copies)

Service List (1 electronic copy)

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE ATTORNEY GENERAL
D.T.E. 05-27

Date: August 24, 2005

Responsible: Danny G. Cote, General Manager

RR-AG-72: Provide a detailed ROR analysis in List Item 8 on Revised Attachment DTE-3-22, page 215 to include the future revenue anticipated at the time the project was conceived that provided the 12 percent rate of return; and the detail actual costs of mains, services, overheads and meters for the project ID S99D1091.

Response: Please see Attachment RR-AG-72, page 1 of 22, for a detailed ROR analysis for List Item 8 on the Attachment DTE-3-22 Revised and the future revenue amount anticipated at the time the project was conceived. Please see Attachment RR-AG-72, page 2 for a project summary and page 3 through page 22, for the Work Order Management System ("WOMS") Work Order Cost Detail reports for the main costs and the Asset Management AM610 report for average service costs data.

PRE - CONSTRUCTION RATE OF RETURN (ROR) CALCULATED FROM INFORMATION EXTRACTED FROM BAY STATE GAS SALES SYSTEM

Project: The Ranch / Sunnyside Acres
SouthWick, MA

| Year | Capital | Total Investment | Revenue | O&M | Average Property Tax | Discount Rate | Effective Tax Rate |
|-------|-----------|------------------|----------|----------|----------------------|---------------|--------------------|
| 1 | \$35,607 | \$35,607 | \$4,056 | \$1,330 | \$14.88 | 8.70% | 38.00% |
| 2 | 8,380 | 8,380 | 9,126 | 2,842 | | | |
| 3 | 28,005 | 28,005 | 15,210 | 4,596 | | | |
| 4 | 21,834 | 21,834 | 22,308 | 6,433 | | | |
| 5 | 17,142 | 17,142 | 26,871 | 7,479 | | | |
| Total | \$110,968 | \$110,968 | \$77,571 | \$22,679 | | | |

| Results Summary | | | | | |
|-----------------|----------|----------|-----------|------------|------------|
| | 55 Yrs. | 35 Yrs. | 15 Yrs. | 10 Yrs. | 5 Yrs. |
| * IRR | 11.75% | 11.49% | 7.19% | -0.35% | #NUM! |
| * NPV | \$32,593 | \$26,543 | (\$8,078) | (\$31,302) | (\$67,291) |
| * Customer Con | \$0 | \$0 | \$13,029 | \$50,488 | \$108,533 |

| Year | Investment | Revenue | O&M | Property Tax | Profit Before Taxes | Depreciation 20 Year Class | Income Taxes | Total Net Income | Total Net Cash Flow (\$35,607) | P.V. OF Cash Flow (\$35,607) | Payback Calculation (\$35,607) | Payback Period |
|-------|------------|-----------|---------|--------------|---------------------|----------------------------|--------------|------------------|--------------------------------|------------------------------|--------------------------------|----------------|
| 1 | \$35,607 | \$4,056 | \$1,330 | \$530 | \$2,197 | \$1,335 | \$327 | \$534 | (\$6,511) | (5.990) | (\$41,597) | 0 |
| 2 | 8,380 | 9,126 | 2,842 | 510 | 5,774 | 2,570 | 1,218 | 1,986 | (23,448) | (19.845) | (61,441) | 1 |
| 3 | 28,005 | 15,210 | 4,596 | 472 | 10,142 | 3,428 | 2,552 | 4,163 | (14,243) | (11.090) | (72,531) | 2 |
| 4 | 21,834 | 22,308 | 6,433 | 436 | 15,439 | 5,040 | 3,952 | 6,447 | (5,655) | (4.050) | (76,582) | 3 |
| 5 | 17,142 | 26,871 | 7,479 | 404 | 18,989 | 6,123 | 4,889 | 7,977 | 14,100 | 9.291 | (67,291) | 4 |
| 6 | | 26,871 | 7,479 | 373 | 19,019 | 6,307 | 4,831 | 7,881 | 14,188 | 8.601 | (58,689) | 5 |
| 7 | | 26,871 | 7,479 | 345 | 19,047 | 5,834 | 5,021 | 8,192 | 14,026 | 7.822 | (50,867) | 6 |
| 8 | | 26,871 | 7,479 | 319 | 19,073 | 5,396 | 5,197 | 8,479 | 13,876 | 7.119 | (43,748) | 7 |
| 9 | | 26,871 | 7,479 | 295 | 19,097 | 5,091 | 5,322 | 8,684 | 13,775 | 6.502 | (37,247) | 8 |
| 10 | | 26,871 | 7,479 | 272 | 19,121 | 4,828 | 5,431 | 8,861 | 13,689 | 5.944 | (31,302) | 9 |
| 11 | | 26,871 | 7,479 | 248 | 19,144 | 4,664 | 5,503 | 8,978 | 13,642 | 5.449 | (25,853) | 10 |
| 12 | | 26,871 | 7,479 | 225 | 19,168 | 4,587 | 5,541 | 9,040 | 13,627 | 5.008 | (20,845) | 11 |
| 13 | | 26,871 | 7,479 | 201 | 19,191 | 4,577 | 5,553 | 9,061 | 13,638 | 4.611 | (16,235) | 12 |
| 14 | | 26,871 | 7,479 | 177 | 19,215 | 4,577 | 5,563 | 9,076 | 13,653 | 4.246 | (11,988) | 13 |
| 15 | | 26,871 | 7,479 | 154 | 19,239 | 4,577 | 5,571 | 9,090 | 13,667 | 3.911 | (8,078) | 14 |
| 16 | | 26,871 | 7,479 | 130 | 19,262 | 4,577 | 5,581 | 9,105 | 13,682 | 3.601 | (4,476) | 15 |
| 17 | | 26,871 | 7,479 | 106 | 19,286 | 4,577 | 5,589 | 9,119 | 13,697 | 3.317 | (1,160) | 16 |
| 18 | | 26,871 | 7,479 | 83 | 19,310 | 4,577 | 5,599 | 9,134 | 13,711 | 3.055 | 1,895 | 17 |
| 19 | | 26,871 | 7,479 | 59 | 19,333 | 4,577 | 5,607 | 9,149 | 13,726 | 2,813 | 4,708 | 18 |
| 20 | | 26,871 | 7,479 | 35 | 19,357 | 4,577 | 5,617 | 9,164 | 13,740 | 2,591 | 7,299 | 19 |
| 21 | | 26,871 | 7,479 | 12 | 19,381 | 3,783 | 5,927 | 9,671 | 13,453 | 2,334 | 9,632 | 20 |
| 22 | | 26,871 | 7,479 | (0) | 19,392 | 2,988 | 6,234 | 10,171 | 13,159 | 2,100 | 11,732 | 21 |
| 23 | | 26,871 | 7,479 | 0 | 19,392 | 2,364 | 6,471 | 10,558 | 12,921 | 1,897 | 13,629 | 22 |
| 24 | | 26,871 | 7,479 | 0 | 19,392 | 1,252 | 6,893 | 11,247 | 12,499 | 1,688 | 15,317 | 23 |
| 25 | | 26,871 | 7,479 | 0 | 19,392 | 382 | 7,224 | 11,786 | 12,169 | 1,512 | 16,829 | 24 |
| 26 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 1,374 | 18,203 | 25 |
| 27 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 1,264 | 19,467 | 26 |
| 28 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 1,163 | 20,630 | 27 |
| 29 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 1,070 | 21,700 | 28 |
| 30 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 984 | 22,684 | 29 |
| 31 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 906 | 23,590 | 30 |
| 32 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 833 | 24,423 | 31 |
| 33 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 766 | 25,189 | 32 |
| 34 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 705 | 25,894 | 33 |
| 35 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 649 | 26,543 | 34 |
| 36 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 597 | 27,140 | 35 |
| 37 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 549 | 27,689 | 36 |
| 38 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 505 | 28,194 | 37 |
| 39 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 465 | 28,658 | 38 |
| 40 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 427 | 29,086 | 39 |
| 41 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 393 | 29,479 | 40 |
| 42 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 362 | 29,841 | 41 |
| 43 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 333 | 30,173 | 42 |
| 44 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 306 | 30,479 | 43 |
| 45 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 282 | 30,761 | 44 |
| 46 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 259 | 31,020 | 45 |
| 47 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 238 | 31,259 | 46 |
| 48 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 219 | 31,478 | 47 |
| 49 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 202 | 31,680 | 48 |
| 50 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 186 | 31,865 | 49 |
| 51 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 171 | 32,036 | 50 |
| 52 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 157 | 32,193 | 51 |
| 53 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 144 | 32,337 | 52 |
| 54 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 133 | 32,470 | 53 |
| 55 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | 12,023 | 122 | 32,593 | 54 |
| 56 | | 26,871 | 7,479 | 0 | 19,392 | 0 | 7,369 | 12,023 | (98,945) | (926) | 31,667 | 55 |
| Total | 110,968 | 1,447,992 | 404,087 | 5,387 | 1,038,518 | 102,588 | 355,653 | 580,276 | 460,928 | 31,667 | 285,922 | 56 |

Bay State Gas Company
Southwick / Sunnyside Ranch Road, Project S99D1091

PRE CONSTRUCTION
Project Assumptions & Summary

Originally, in 1999, the project was segmented into two authorizations, one for the residential and one for the C&I portion. It was anticipated to be a 5 year project with the C&I customers to be connected first to the distribution system. The combined 5 year project rate of return (ROR) was 10.4%

In 2001, the first segment was constructed. In 2002, before the residential segment was constructed new cost estimates and a new rate of return (ROR) were calculated. The revised ROR for the residential segment was 12%.

Capital & O&M Costs

| | 1999 Estimate Residential | 1999 Estimate C & I | 1999 Estimate Total | 2002 Estimate Residential | 2002 Estimate C & I | 2002 Estimate Total |
|------------------------------------|---------------------------------|---------------------------|---------------------------|---------------------------------|---------------------------|---------------------------|
| Mains | \$ 55,197 | \$ 29,562 | \$ 84,759 | \$ 66,554 | \$ - | \$ 66,554 |
| Services | 42,000 | 4,523 | 46,523 | 39,750 | - | 39,750 |
| Meters | 6,380 | 5,122 | 11,502 | 4,664 | - | 4,664 |
| Total | 103,577 | 39,207 | 142,784 | 110,968 | - | 110,968 |
| Average O&M per meter | 166 | 206 | 372 | 166 | - | 166 |
| Total O&M | 9,130 | 618 | 9,748 | 8,798 | - | 8,798 |
| Revenue & Load | | | | | | |
| Average heat load (Mcf) per meter | 133 | 442 | | 133 | - | |
| Average base load (Mcf) per meter | 27 | 285 | | 27 | - | |
| Total average load (Mcf) per meter | 160 | 726 | | 160 | - | |
| Revenue per meter | \$ 507 | \$ 1,675 | | \$ 507 | \$ - | |
| Total Revenue | 27,885 | 5,025 | 32,910 | 26,871 | - | 26,871 |
| Number of meters | 55 | 3 | 55 | 53 | - | 53 |
| Rate of Return (ROR) | 12.4% | 8.0% | 10.4% | 11.8% | NA | 10.4% |

POST CONSTRUCTION
Project Assumptions & Summary

| Residential | C & I | Total |
|-------------|----------|---------|
| \$ 168,956 | \$ - | 168,956 |
| 5,940 | 5,158 | 11,098 |
| 594 | 3,337 | 3,931 |
| 175,490 | 8,495 | 183,985 |
| 166 | 183 | 349 |
| 830 | 366 | 1,196 |
| 133 | 401 | |
| 27 | - | |
| 160 | 401 | |
| \$ 507 | \$ 1,137 | |
| 2,535 | 2,274 | 4,809 |
| 5 | 2 | 7 |
| 0.0% | 15.0% | 0.0% |

Project ID: S99D1091
From Date: 12/31/1992
To Date: 12/31/2004

Bay State Gas - Work Management System Detail Project Cost Report

Report Date: 6/13/2005
Report Time: 7:15:14PM

| Work Code | Town Code | At Street | Work Order | Pipe Type | Pipe Size | Comp Units | Hours | Labor | Purchases | Materials | Direct Cost | Average Cost | Overhead |
|-----------|-----------|---------------|---------------------------------|-----------|-----------|------------|-------|--------|------------|-----------|-------------|--------------|----------|
| MNNR | 203 | 0 Greenview | 4908406-1 | PP | 2" | | | | | | | | |
| | | | Subtotal for Greenview: | | | | | | | | | | |
| MNNR | 203 | 0 Overlook | 4908458-1 | PP | 2" | | | | | | | | |
| | | | Subtotal for Overlook: | | | | | | | | | | |
| MNNR | 203 | 0 Pondview | 4908475-1 | PP | 2" | 1,117 | | | | | | | |
| | | | Subtotal for Pondview: | | | 1,117 | | | | | | | |
| MNNR | 203 | 0 Ranch Club | 4403562-1A | PP | 2" | 507 | 0.00 | 0.00 | 1,600.94 | 532.56 | 2,133.50 | 4.21 | 202.87 |
| MNNR | 203 | 0 Ranch Club | 4908389-1A | PP | 2" | 507 | 0.00 | 0.00 | 1,600.94 | 532.56 | 2,133.50 | 4.21 | 202.87 |
| | | | Subtotal for Ranch Club: | | | 507 | 0.00 | 0.00 | 1,600.94 | 532.56 | 2,133.50 | 4.21 | 202.87 |
| MNNR | 203 | 0 Sugar Maple | 4908442-1 | PP | 2" | | | | | | | | |
| | | | Subtotal for Sugar Maple: | | | | | | | | | | |
| B MNNR | 203 | 0 Sunnyside | 1917378-1B | pp | 4" | 423 | 9.89 | 271.53 | 13,624.48 | 6,175.65 | 20,071.66 | 47.45 | 568.99 |
| C MNNR | 203 | 0 Sunnyside | 4266212-1C | PP | 4" | 3,094 | 0.00 | 0.00 | 70,303.86 | 2,672.30 | 72,976.16 | 23.59 | 4,899.96 |
| D MNNR | 203 | 0 Sunnyside | 4457194-1D | CS | 4" | 140 | 0.00 | 0.00 | 1,524.46 | 33.88 | 1,558.34 | 11.13 | 2,000.00 |
| E MNNR | 203 | 0 Sunnyside | 4908463-1E | PP | 4" | 2,143 | 0.00 | 0.00 | 59,668.73 | 3,483.59 | 63,152.32 | 29.47 | 1,393.42 |
| | | | Subtotal for Sunnyside: | | | 5800 | 9.89 | 271.53 | 145,121.53 | 12,305.42 | 157,758.48 | 27.20 | 8,862.37 |
| | | | Subtotal for Output No. : 151 | | | 7,424 | 9.89 | 271.53 | 146,722.47 | 12,897.98 | 159,891.98 | 21.54 | 9,065.24 |
| | | | Total for Project ID : S99D1091 | | | 7,424 | 9.89 | 271.53 | 146,722.47 | 12,897.98 | 159,891.98 | 21.54 | 9,065.24 |

See attachments

MAIN
WORK
ORDER
Re Advance
Schedule

rogram: wwrpt130.p
Date: 01/14/2005
By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Page: 1 D.T.E. 05-27
Attachment RR-AG-72
Page 4 of 22

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R E P O R T P A R A M E T E R S

=====

main
Report Type : Detail
work Order# : 4403562 ← *A*
Division : Springfield
Work Type : Distribution
Work Category : (All)
Work Code : (All)
Comp/Cont : (All)
Project ID :
Output # : 0000
Source Code : (All)
From Period : 199301
To Period : 200412

Program: wwrpt130.p
Date: 01/14/2005
Req By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Page: 2
Bay State Gas Company
D.T.E. 05-27
Attachment RR-AG-72
Page 5 of 22

Order#: 4403562 Task: 001 Project Id: S99D1091 Work Code: MNNRC Output#: 0151
Town/Street: Southwick/Ranch Club Stat: 99 09/30/2001

| Type | Tran Dt | Acct # | Acct Unit | Source Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|---------|----------|------------|-----------|-------------|-----------|--------------------------------|----------|-------|----------|
| E | 07/13/01 | 2013110000 | 02260 | AD | 99013082 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,600.94 |
| | | | | | | **Total PURCHASES | | 0.00 | 1,600.94 |
| M | 06/20/01 | 2013110000 | 02140 | IS | 1881 | 5 IN DIA. PLASTIC ROADWAY BOX | 2209 | 0.00 | 18.70 |
| M | 06/20/01 | 2013110000 | 02140 | IS | 1881 | 5"DIA.ABS. PLASTIC ROADWAY BOX | 2209 | 0.00 | 31.98 |
| M | 08/10/01 | 2013110000 | 02115 | IS | 44035 | 2 IN IPS PE3408 PLEXSTRIPE II | 2206 | 0.00 | 274.96 |
| M | 08/10/01 | 2013110000 | 02115 | IS | 44035 | 2"IPS PE3408 POLY BALL VALVE | 2209 | 0.00 | 206.92 |
| | | | | | | **Total MATERIALS | | 0.00 | 532.56 |
| I | 06/20/01 | 2013110000 | 02AL | MS | MS | STORES CLEARING | 4002 | 0.00 | 3.74 |
| I | 06/20/01 | 2013110000 | 02AL | MS | MS | STORES CLEARING | 4002 | 0.00 | 6.39 |
| I | 08/10/01 | 2013110000 | 02AL | MS | MS | STORES CLEARING | 4002 | 0.00 | 109.98 |
| I | 08/10/01 | 2013110000 | 02AL | MS | MS | STORES CLEARING | 4002 | 0.00 | 82.76 |
| | | | | | | **Total OVERHEADS | | 0.00 | 202.87 |
| **Task: | | 4403562- | | | | Task Units: | | | 507.00 |
| | | | | | | Task Direct Total: | | | 2,133.50 |
| | | | | | | Direct Avg Cost: | | | 4.21 |
| | | | | | | Task Total: | | | 2,336.37 |
| | | | | | | Total Avg Cost: | | | 4.61 |

Continued on next page...

rogram: ww rpt130.p
Date: 01/14/2005
Req By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Time: 14:01:05
Attachment RR-AG-72
Page 6 of 22

EXPORT TOTALS

Hours: 0.00
Labor: 0.00
Purchases: 1,600.94
Materials: 532.56
Units: 507
Direct Total: 2,133.50
Overhead: 202.87
Total: 2,336.37
Direct Avg Cost: 4.21
Total Avg Cost: 4.61

ogram: wrpt130.p
Date: 01/14/2005
eq By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Page: 1 D.T.E. 05-27
Attachment RR-AG-72
Page 7 of 22

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REPORT PARAMETERS

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Main work

Report Type : Detail
Order# : 1917378
Division : Springfield
Work Type : Distribution
Work Category : (All)
Work Code : (All)
Comp/Cont : (All)
Project ID :
Output # : 0000
Source Code : (All)
From Period : 199301
To Period : 200412

← (B)

Program: wwrpt130.p
 Date: 01/14/2005
 Req By: Doug Casey

Bay State Gas Company
 Work Order Management System
 Work Order Cost Detail

Bay State Gas Company
 Time: 14:05:27
 Attachment RR-AG-72
 Page 8 of 22

Order#: 1917378 Task: 001 Project Id: S99D1091 Work Code: MNNRC Output#: 0151
 Town/Street: Southwick/Sunnyside Stat: 99 03/31/2001

| Type | Tran Dt | Acct # | Acct Unit | Source Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|---------|----------|------------|--------------------|-------------|-----------|--------------------------------|----------|-------|-----------|
| L | 11/11/00 | 2013110000 | 02115 | PW | 861 | PAYROLL EXPENSE | 6002 | 3.46 | 84.95 |
| L | 11/11/00 | 2013110000 | 02115 | PW | 861 | PAYROLL EXPENSE | 6005 | 1.13 | 41.81 |
| L | 11/11/00 | 2013110000 | 02115 | PW | 861 | PAYROLL EXPENSE | 6008 | 0.00 | 1.16 |
| L | 12/01/00 | 2013110000 | 02115 | PW | 861 | PAYROLL EXPENSE | 6002 | 4.22 | 103.68 |
| L | 12/01/00 | 2013110000 | 02115 | PW | 861 | PAYROLL EXPENSE | 6005 | 1.08 | 39.93 |
| | | | | | | **Total LABOR | | 9.89 | 271.53 |
| S | 04/30/00 | 2013110000 | 02140 | AD | 040700PE | 999134638COMM OF MA-HIGHWAY DE | 0806 | 0.00 | 500.00 |
| S | 10/31/00 | 2013110000 | 02260 | AD | 101100 | 16182ALFRED MELIEN | 0806 | 0.00 | 360.00 |
| S | 11/27/00 | 2013110000 | 02260 | AD | 99012728 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 778.70 |
| S | 11/27/00 | 2013110000 | 02260 | AD | 99012729 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,671.18 |
| S | 11/27/00 | 2013110000 | 02260 | AD | 99012730 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 487.36 |
| S | 11/30/00 | 2013110000 | 02140 | AD | 110100PE | 15764PETTY CASH CHEAWANDA | 2201 | 0.00 | 53.64 |
| S | 11/30/00 | 2013110000 | 02260 | AD | SUNNYSID | 4335ENVIRONMENTAL SERVICE | 0806 | 0.00 | 1,390.00 |
| S | 12/15/00 | 2013110000 | 02260 | AD | 99016204 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 5,595.30 |
| S | 12/30/00 | 2013110000 | 02260 | AD | 00-125-D | 4548SOUTHWICK POLICE DEPA | 1606 | 0.00 | 1,277.10 |
| S | 12/31/00 | 2013110000 | 02140 | AD | 121200PE | 15764PETTY CASH CHEAWANDA | 0806 | 0.00 | 14.00 |
| S | 12/31/00 | 2013110000 | 02260 | AD | 00-132-D | 4548SOUTHWICK POLICE DEPA | 1606 | 0.00 | 564.00 |
| S | 01/17/01 | 2013110000 | 02260 | AD | 99015449 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 933.20 |
| | | | | | | **Total PURCHASES | | 0.00 | 13,624.48 |
| M | 11/08/00 | 2013110000 | 02260 | IS | 1043 | 4IN IPS ELECTROFUSION COUPLING | 2207 | 0.00 | 24.50 |
| M | 11/08/00 | 2013110000 | 02260 | IS | 1042 | 4*IPS PLEXCO BUTT TEE | 2207 | 0.00 | 26.24 |
| M | 11/08/00 | 2013110000 | 02260 | IS | 1043 | 2*IPS PLEXCO 90D BUTT ELBOW | 2207 | 0.00 | 6.42 |
| M | 11/08/00 | 2013110000 | 02260 | IS | 1042 | 4*IPS PLEXCO 90D BUTT ELBOW | 2207 | 0.00 | 11.93 |
| M | 11/08/00 | 2013110000 | 02260 | IS | 1043 | 6*IPS X 2*IPS ELECTROFUSION | 2207 | 0.00 | 155.10 |
| M | 11/08/00 | 2013110000 | 02260 | IS | 1042 | 4*IPS PLEXCO BUTT REDUCER | 2207 | 0.00 | 19.14 |
| M | 11/08/00 | 2013110000 | 02260 | IS | 1042 | 4 IN IPS PE3408 PLEXSTRIPE II | 2206 | 0.00 | 126.40 |
| M | 11/09/00 | 2013110000 | 02260 | IS | 1043 | 4 IN IPS PE3408 PLEXSTRIPE II | 2206 | 0.00 | 1,832.80 |
| M | 11/13/00 | 2013110000 | 02260 | IS | 0978 | 4 IN IPS PE3408 PLEXSTRIPE II | 2206 | 0.00 | 3,665.60 |
| M | 01/31/01 | 2013110000 | 02AL | SS | | WOMS SPREAD ACCOUNTS | 2218 | 0.00 | 307.52 |
| | | | | | | **Total MATERIALS | | 0.00 | 6,175.65 |
| I | 11/15/00 | 2013110000 | 02AL | FR | FR | FRINGE BENEFITS | 4007 | 0.00 | 31.98 |
| I | 11/20/00 | 2013110000 | 02AL | IL | IL | INDIRECT LABOR | 4013 | 0.00 | 255.84 |
| I | 11/25/00 | 2013110000 | 02AL | NT | NT | NON PROD LABOR | 4014 | 0.00 | 31.98 |
| I | 11/30/00 | 2013110000 | 02AL | VC | VC | VEHICLE CLEARING 001917378001 | 4001 | 0.00 | 42.11 |
| I | 12/15/00 | 2013110000 | 02AL | FR | FR | FRINGE BENEFITS | 4007 | 0.00 | 35.90 |
| I | 12/20/00 | 2013110000 | 02AL | IL | IL | INDIRECT LABOR | 4013 | 0.00 | 107.71 |
| I | 12/25/00 | 2013110000 | 02AL | NT | NT | NON PROD LABOR | 4014 | 0.00 | 21.54 |
| I | 12/31/00 | 2013110000 | 02AL | VC | VC | VEHICLE CLEARING 001917378001 | 4001 | 0.00 | 41.93 |
| | | | | | | **Total OVERHEADS | | 0.00 | 568.99 |
| **Task: | | 1917378- | Task Units: | | | | | | 423.00 |
| | | | Task Direct Total: | | | | | | 20,071.66 |
| | | | Direct Avg Cost: | | | | | | 47.45 |

Continued on next page...

rogram: wwrpt130.p
Date: 01/14/2005
By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
D.T.E. 05-27
Attachment RR-AG-72
Page 9 of 22

| pe Tran Dt | Acct # | Unit | Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|-----------------|--------|------|------|-----------|--------------------|----------|-------|-----------|
| ----- | | | | | | | | ----- |
| Task Total: | | | | | | | | 20,640.65 |
| Total Avg Cost: | | | | | | | | 48.80 |

Program: wwrpt130.p
Date: 01/14/2005
Req By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
D.T.E. 05-27
Attachment RR-AG-72
Page 10 of 22

REPORT TOTALS

Hours: 9.89
Labor: 271.53
Purchases: 13,624.48
Materials: 6,175.65
Units: 423
Direct Total: 20,071.66
Overhead: 568.99
Total: 20,640.65
Direct Avg Cost: 47.45
Total Avg Cost: 48.80

End of Report

ogram: wrpt130.p
Date: 01/14/2005
eq By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Page: 1
D.T.E. 05-27
Attachment RR-AG-72
Page 11 of 22

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REPORT PARAMETERS

=====

MAIN WORK Report Type : Detail
 Order# : 4266212 ← (C)
 Division : Springfield
 Work Type : Distribution
Work Category : {All}
 Work Code : {All}
 Comp/Cont : {All}
Project ID :
 Output # : 0000
Source Code : {All}
From Period : 199301
To Period : 200412

Program: wwrpt130.p
 Date: 01/14/2005
 Req By: Doug Casey

Bay State Gas Company
 Work Order Management System
 Work Order Cost Detail

Bay State Gas Company
 Time: 14:05
 D.T.E. 05-27
 Attachment RR-AG-72
 Page 12 of 22

Order#: 4266212 Task: 001 Project Id: S99D1091 Work Code: MNNRC Output#: 0151
 Town/Street: Southwick/Sunnyside Stat: 99 07/31/2001

| Type | Tran Dt | Acct # | Acct Unit | Source Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|------|----------|------------|-----------|-------------|-----------|--------------------------------|----------|-------|-----------|
| : | 05/03/01 | 2013110000 | 02260 | AD | 99015455 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,540.56 |
| : | 05/14/01 | 2013110000 | 02260 | AD | 99013444 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,535.40 |
| : | 05/14/01 | 2013110000 | 02260 | AD | 99016282 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 2,036.56 |
| : | 05/14/01 | 2013110000 | 02260 | AD | 99016284 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 2,036.56 |
| : | 05/14/01 | 2013110000 | 02260 | AD | 99016287 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 2,485.88 |
| : | 05/14/01 | 2013110000 | 02260 | AD | 99016288 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,068.70 |
| : | 05/31/01 | 2013110000 | 02115 | AD | LT01-39 | 4891HAMPDEN COUNTY SHERIF | 1606 | 0.00 | 132.00 |
| : | 05/31/01 | 2013110000 | 02115 | AD | 050401 | 4891HAMPDEN COUNTY SHERIF | 1606 | 0.00 | 445.50 |
| : | 05/31/01 | 2013110000 | 02115 | AD | 050501 | 13842COMM. OF MASSACHUSETT | 1606 | 0.00 | 662.20 |
| : | 05/31/01 | 2013110000 | 02115 | AD | 01-45-DV | 4548SOUTHWICK POLICE DEPA | 1606 | 0.00 | 980.10 |
| : | 05/31/01 | 2013110000 | 02115 | AD | LT01-53 | 4891HAMPDEN COUNTY SHERIF | 1606 | 0.00 | 280.50 |
| : | 05/31/01 | 2013110000 | 02115 | AD | 13331 | 8001WESTFIELD POLICE DEPT | 1606 | 0.00 | 262.15 |
| : | 05/31/01 | 2013110000 | 02115 | AD | 12858 | 8001WESTFIELD POLICE DEPT | 1606 | 0.00 | 262.15 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013438 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 5,710.69 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013440 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 2,308.69 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013445 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 3,027.09 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013462 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 2,147.40 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013464 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 5,494.60 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013473 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 8,125.31 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013482 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 2,542.04 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013484 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,540.56 |
| : | 05/31/01 | 2013110000 | 02260 | AD | 99013488 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 5,487.84 |
| : | 06/01/01 | 2013110000 | 02260 | AD | 99013441 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 5,583.77 |
| : | 06/30/01 | 2013110000 | 02115 | AD | 01-49-DV | 4548SOUTHWICK POLICE DEPA | 1606 | 0.00 | 3,148.20 |
| : | 06/30/01 | 2013110000 | 02115 | AD | 12860 | 8001WESTFIELD POLICE DEPT | 1606 | 0.00 | 262.15 |
| : | 06/30/01 | 2013110000 | 02115 | AD | 01-52-DV | 4548SOUTHWICK POLICE DEPA | 1606 | 0.00 | 237.60 |
| : | 06/30/01 | 2013110000 | 02115 | AD | 052901 | 13842COMM. OF MASSACHUSETT | 1606 | 0.00 | 970.20 |
| : | 06/30/01 | 2013110000 | 02115 | AD | 060901 | 13842COMM. OF MASSACHUSETT | 1606 | 0.00 | 246.40 |
| : | 07/31/01 | 2013110000 | 02115 | AD | 01-65-DV | 4548SOUTHWICK POLICE DEPA | 1606 | 0.00 | 237.60 |
| : | 07/31/01 | 2013110000 | 02115 | AD | 14103 | 8001WESTFIELD POLICE DEPT | 1606 | 0.00 | 119.84 |
| : | 07/31/01 | 2013110000 | 02115 | AD | 13936 | 8001WESTFIELD POLICE DEPT | 1606 | 0.00 | 119.84 |
| : | 08/31/01 | 2013110000 | 02260 | AD | 002241A | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 9,265.78 |
| | | | | | | **Total PURCHASES | | 0.00 | 70,303.86 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 4IN IPS X 4IN IPS TRANSITION | 2207 | 0.00 | 48.18 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 4"IPS PLEXCO BUTT TEE | 2207 | 0.00 | 13.12 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 4 IN 90 DEG. LR WELD ELBOW | 2207 | 0.00 | 14.75 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 4"IPS PLEXCO BUTT REDUCER | 2207 | 0.00 | 12.76 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 4 IN IPS POLYVALVE BALL VALVE | 2209 | 0.00 | 785.07 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 4.500 OD .188 WALL STEEL PIPE | 2206 | 0.00 | 846.00 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 4 IN 45 DEG. LR WELD ELBOW | 2207 | 0.00 | 19.60 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 2"X75' 35MIL TAPECOAT H35 GREY | 2209 | 0.00 | 108.53 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | 6 IN INSUL. FIBERGLASS SPACER | 2209 | 0.00 | 5.04 |
| : | 04/30/01 | 2013110000 | 02140 | IS | 1881 | OMNI-PRIME PRIMER | 2209 | 0.00 | 41.01 |
| : | 05/04/01 | 2013110000 | 02140 | IS | 1881 | 4 IN 90 DEG. LR WELD ELBOW | 2207 | 0.00 | 29.50 |
| : | 05/31/01 | 2013110000 | 02AL | SS | | WOMS SPREAD ACCOUNTS | 2218 | 0.00 | 748.74 |
| | | | | | | **Total MATERIALS | | 0.00 | 2,672.30 |

Continued on next page...

Bay State Gas Company
D.T.E. 05-27
Attachment RR-AG-72
Page 13 of 22

| Line | Type | Trans Dt | Acct # | Unit | Source Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|----------|------|------------|--------|------|-------------|-----------|---------------------|----------|-------|-----------|
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 48.11 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 13.12 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 14.75 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 12.76 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 785.07 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 846.00 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 19.60 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 108.53 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 5.04 |
| 04/30/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 41.01 |
| 05/04/01 | | 2013110000 | 02AL | MS | MS | | STORES CLEARING | 4002 | 0.00 | 5.90 |
| 08/31/01 | | 2013110000 | 02115 | 88 | 88 | | payroll accrual adj | 6002 | 0.00 | 3,000.00 |
| | | | | | | | **Total OVERHEADS | | 0.00 | 4,899.96 |
| **Task: | | 4266212- | | | | | Task Units: | | | 3,094.00 |
| | | | | | | | Task Direct Total: | | | 72,976.16 |
| | | | | | | | Direct Avg Cost: | | | 23.59 |
| | | | | | | | Task Total: | | | 77,876.12 |
| | | | | | | | Total Avg Cost: | | | 25.17 |

continued on next page...

Program: wwrpt130.p
Date: 01/14/2005
Req By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Time: 14:07:05-27
Attachment RR-AG-72
Page 14 of 22

REPORT TOTALS

Hours: 0.00
Labor: 0.00
Purchases: 70,303.86
Materials: 2,672.30
Units: 3094
Direct Total: 72,976.16
Overhead: 4,899.96
Total: 77,876.12
Direct Avg Cost: 23.59
Total Avg Cost: 25.17

End of Report

ogram: wwrpt130.p
Date: 01/14/2005
eq By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Page: 1 D.T.E. 05-27
Attachment RR-AG-72
Page 15 of 22

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REPORT PARAMETERS

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main work Report Type : Detail
Order# : 4457194 ← (D)
Division : Springfield
Work Type : Distribution
Work Category : (All)
Work Code : (All)
Comp/Cont : (All)
Project ID :
Output # : 0000
Source Code : (All)
From Period : 199301
To Period : 200412

Program: wwrpt130.p
 Date: 01/14/2005
 Req By: Doug Casey

Bay State Gas Company
 Work Order Management System
 Work Order Cost Detail

Bay State Gas Company
 Date: 01-14-2005
 Time: 10:35:00
 Attachment RR-AG-72
 Page 16 of 22

Order#: 4457194 Task: 001 Project Id: S99D1091 Work Code: MNRC Output#: 0151
 Town/Street: Southwick/Sunnyside Stat: 99 07/31/2001

| Type | Tran Dt | Acct # | Acct Unit | Source Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|--------------------|----------|------------|-------------|-------------|-----------|----------------------|----------|-------|----------|
| E | 05/31/01 | 2013110000 | 02AL | VS | | WOMS SPREAD ACCOUNTS | 2219 | 0.00 | 1,524.46 |
| | | | | | | **Total PURCHASES | | 0.00 | 1,524.46 |
| M | 05/31/01 | 2013110000 | 02AL | SS | | WOMS SPREAD ACCOUNTS | 2218 | 0.00 | 33.88 |
| | | | | | | **Total MATERIALS | | 0.00 | 33.88 |
| I | 08/31/01 | 2013110000 | 02115 | 88 | 88 | payroll accrual adj | 6002 | 0.00 | 2,000.00 |
| | | | | | | **Total OVERHEADS | | 0.00 | 2,000.00 |
| **Task: | | 4457194- | Task Units: | | | | | | 140.00 |
| Task Direct Total: | | | | | | | | | 1,558.34 |
| Direct Avg Cost: | | | | | | | | | 11.13 |
| Task Total: | | | | | | | | | 3,558.34 |
| Total Avg Cost: | | | | | | | | | 25.42 |

Continued on next page...

rogram: wwrpt130.p
Date: 01/14/2005
Req By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
D.F.E. 05-27
Attachment RR-AG-72
Page 17 of 22

EXPORT TOTALS
Hours: 0.00
Labor: 0.00
Purchases: 1,524.46
Materials: 33.88
Units: 140
Direct Total: 1,558.34
Overhead: 2,000.00
Total: 3,558.34
Direct Avg Cost: 11.13
Total Avg Cost: 25.42

rogram: wwrpt130.p
Date: 01/14/2005
By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Page: 1
D.T.E. 05-27
Attachment RR-AG-72
Page 18 of 22

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R E P O R T P A R A M E T E R S

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Main Report Type : Detail
work Order# : 4908463 ← *E*
Division : Springfield
Work Type : Distribution
Work Category : (All)
Work Code : (All)
Comp/Cont : (All)
Project ID :
Output # : 0000
Source Code : (All)
From Period : 199301
To Period : 200412

Program: wwrpt130.p
 Date: 01/14/2005
 Req By: Doug Casey

Bay State Gas Company
 Work Order Management System
 Work Order Cost Detail

Bay State Gas Company
 Time: 14:05:27
 Attachment RR-AG-72
 Page 19 of 22

Order#: 4908463 Task: 001 Project Id: S99D1091 Work Code: MNNRC Output#: 0151
 Town/Street: Southwick/Sunnyside Stat: 99 10/31/2003

| Type | Tran Dt | Acct # | Acct Unit | Source Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|---------|----------|------------|--------------------|-------------|-----------|-------------------------------|----------|-------|-----------|
| | 05/15/03 | 2013110000 | 02260 | AD | 039077 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 3,211.34 |
| | 05/15/03 | 2013110000 | 02260 | AD | 039078 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 4,843.87 |
| | 05/22/03 | 2013110000 | 02260 | AD | 039083 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 3,879.96 |
| | 05/22/03 | 2013110000 | 02260 | AD | 039089 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 4,737.80 |
| | 05/22/03 | 2013110000 | 02260 | AD | 039090 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 4,737.80 |
| | 05/22/03 | 2013110000 | 02260 | AD | 039096 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 4,640.46 |
| | 05/22/03 | 2013110000 | 02260 | AD | 039099 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 4,640.46 |
| | 06/19/03 | 2013110000 | 02260 | AD | 012352 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 865.98 |
| | 06/19/03 | 2013110000 | 02260 | AD | 014944 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,765.59 |
| | 06/24/03 | 2013110000 | 02260 | AD | 039109 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 1,692.66 |
| | 06/30/03 | 2013110000 | 02140 | AD | 03-54-DV | 19122SOUTHWICK POLICE DEPA | 1606 | 0.00 | 2,449.07 |
| | 06/30/03 | 2013110000 | 02140 | AD | CASH0618 | 8001WESTFIELD POLICE DEPT | 1606 | 0.00 | 239.68 |
| | 06/30/03 | 2013110000 | 02140 | AD | 03-59-DV | 19122SOUTHWICK POLICE DEPA | 1606 | 0.00 | 1,530.65 |
| | 06/30/03 | 2013110000 | 02140 | AD | 03-66-DV | 19122SOUTHWICK POLICE DEPA | 1606 | 0.00 | 269.20 |
| | 07/29/03 | 2013110000 | 02260 | AD | 039116 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 7,539.84 |
| | 07/31/03 | 2013110000 | 02140 | AD | 30043 | 2501HAWKEYE CONSTRUCTION | 1630 | 0.00 | 110.00 |
| | 07/31/03 | 2013110000 | 02260 | AD | 012371 | 2273KUDLIC BROS., INC. | 1609 | 0.00 | 11,037.19 |
| | 08/31/03 | 2013110000 | 02115 | AD | CASH0725 | 19799CITY OF WESTFIELD | 1606 | 0.00 | 239.68 |
| | 08/31/03 | 2013110000 | 02140 | AD | 30357 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 27.50 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 110.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 165.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 110.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 110.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 165.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 55.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 110.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 110.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 110.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 55.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 55.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 55.00 |
| | 12/31/03 | 2013110000 | 02140 | AD | 29861 | 17269HAWKEYE CONSTRUCTION | 1630 | 0.00 | 55.00 |
| | | | | | | **Total PURCHASES | | 0.00 | 59,668.73 |
| | 05/06/03 | 2013110000 | 02140 | IS | 1995 | 4"IPS PLEXCO BUTT REDUCER | 2207 | 0.00 | 6.38 |
| | 05/06/03 | 2013110000 | 02140 | IS | 1995 | 4 IN IPS POLYVALVE BALL VALVE | 2209 | 0.00 | 261.69 |
| | 05/06/03 | 2013110000 | 02140 | IS | 1995 | 4 IN IPS PE3408 PLASTIC | 2206 | 0.00 | 3,215.52 |
| | | | | | | **Total MATERIALS | | 0.00 | 3,483.59 |
| | 05/06/03 | 2013110000 | 02AL | MS | MS | STORES CLEARING | 4002 | 0.00 | 2.55 |
| | 05/06/03 | 2013110000 | 02AL | MS | MS | STORES CLEARING | 4002 | 0.00 | 104.67 |
| | 05/06/03 | 2013110000 | 02AL | MS | MS | STORES CLEARING | 4002 | 0.00 | 1,286.20 |
| | | | | | | **Total OVERHEADS | | 0.00 | 1,393.42 |
| **Task: | | 4908463- | Task Units: | | | | | | 2,143.00 |
| | | | Task Direct Total: | | | | | | 63,152.32 |
| | | | Direct Avg Cost: | | | | | | 29.47 |

Continued on next page...

rogram: wwrpt130.p
Date: 01/14/2005
By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
Time: 14:39 D.T.E. 05-27
Attachment RR-AG-72
Page 20 of 22

| Tran Dt | Acct # | Unit | Source Code | Reference | Vendor/Description | Cost Cat | Units | Cost |
|-----------------|--------|------|-------------|-----------|--------------------|----------|-------|-----------|
| Task Total: | | | | | | | | 64,545.74 |
| Total Avg Cost: | | | | | | | | 30.12 |

rogram: ww rpt130.p
Date: 01/14/2005
Req By: Doug Casey

Bay State Gas Company
Work Order Management System
Work Order Cost Detail

Bay State Gas Company
D.T.E. 05-27
Attachment RR-AG-72
Page 21 of 22

EXPORT TOTALS
Hours: 0.00
Labor: 0.00
Purchases: 59,668.73
Materials: 3,483.59
Units: 2143
Direct Total: 63,152.32
Overhead: 1,393.42
Total: 64,545.74
Direct Avg Cost: 29.47
Total Avg Cost: 30.12

AM610 Date 01/19/05
Time 07:07

Aged Balance Report in Summary or Detail
Run Option DETAIL

Page 263

Bay State Gas Company
D.T.E. 05-27
Attachment RR-AG-72
Page 22 of 22

Report Source
AM 610 = ASSET
MANAGEMENT GID

| | In Service Year | Book Basis | Quantity | Average Cost Per Unit |
|-----------------|--------------------|-----------------|----------------|--------------------------|
| | 2004 | 1,086.72 | 1,685 | .64 |
| Sub-Type: PP02 | Total: | 244,126.01 | 40,092 | 6.08 |
| Division: 2 | Location: MA203 | Asset Type: 367 | Sub Type: PP04 | |
| | 1987 | 15,750.14 | 1,812 | 8.69 |
| | 1988 | 50,369.84 | 3,590 | 14.03 |
| | 1990 | 150,964.74 | 6,436 | 23.45 |
| | 1991 | 5,528.20 | 116 | 47.65 |
| | 1994 | 41,212.39 | 2,291 | 17.98 |
| | 1996 | 13,217.74 | 1,480 | 8.93 |
| | 1997 | 55,109.89 | 7,620 | 7.23 |
| | 1998 | 24,289.78 | 3,178 | 7.64 |
| | 1999 | 231.75 | 1 | 231.75 |
| | 2001 | 98,846.81 | 3,519 | 28.08 |
| | 2002 | 30.17 | 1 | 30.17 |
| | 2003 | 64,545.74 | 2,144 | 30.10 |
| Sub-Type: PP04 | Total: | 520,036.85 | 32,188 | 16.15 |
| Division: 2 | Location: MA203 | Asset Type: 367 | Sub Type: PP06 | |
| | 1987 | 73,108.17 | 5,378 | 13.59 |
| | 1988 | 138,279.28 | 7,834 | 17.65 |
| | 1990 | 160,386.02 | 5,776 | 27.76 |
| | 1992 | 103,500.88 | 7,689 | 13.46 |
| | 1993 | 1,072.92 | 1 | 1,072.92 |
| Sub-Type: PP06 | Total: | 476,347.27 | 26,678 | 17.85 |
| Asset-Type: 367 | Total: | 1,366,658.70 | 101,092 | 13.51 |
| Division: 2 | Location: MA203 | Asset Type: 380 | Sub Type: 00 | |
| | 1987 | 7,206.59 | 21 | 343.17 |
| | 1988 | 21,578.49 | 27 | 799.20 |
| | 1989 | 22,689.32 | 17 | 1,334.66 |
| | 1990 | 28,446.02 | 25 | 1,137.84 |
| | 1991 | 9,356.48 | 6 | 1,559.41 |
| | 1992 | 7,043.99 | 11 | 640.36 |
| | 1993 | 11,773.22 | 9 | 1,308.13 |
| | 1994 | 28,767.54 | 34 | 846.10 |
| | 1995 | 30,589.53 | 32 | 955.92 |
| | 1996 | 9,425.59 | 10 | 942.55 |
| | 1997 | 32,537.60 | 28 | 1,162.05 |
| | 1998 | 18,591.19 | 24 | 774.63 |
| | 1999 | 14,890.41 | 20 | 744.52 |
| | 2000 | 16,447.73 | 24 | 685.32 |
| | 2001 | 21,901.27 | 19 | 1,152.69 |
| | 2002 | 73,801.94 | 53 | 1,392.48 |
| | 2003 | 45,147.54 | 38 | 1,188.09 |

USED AS BASIS of
SERVICE COSTS CHARGED
TO BLANKET AUTHORIZATION.

LOCATION 203 = Southwick
ASSET TYPE 380 = SERVICES
SUB TYPE 00 = RESIDENTIAL

AVERAGE COSTS FOR
SERVICE \$ 1,188.09

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE ATTORNEY GENERAL
D.T.E. 05-27

Date: August 24, 2005

Responsible: Stephen H. Bryant, President

RR-AG-77: RR-AG-7 provided a copy of a previous operational services agreement between Bay State and Northern Utilities. The 2003 redlined document referenced a Schedule A, which was not included with the submittal. If any attachments or schedules were a part of this document, please provide them, or indicate that there are none.

Response: Attachment RR-AG-77 is a copy of the Operational Services Agreement Between Bay State Gas Company and Northern Utilities, Inc. ("Agreement"), as filed with the Department under cover of a letter dated April 25, 2003 (filing letter included). Schedule A of the Operational Services Agreement (see Attachment RR-AG-77, page 6 of 16) contains lists: (1) operational services available under the Agreement; (2) methods for charging for the operational services provided and (3) miscellaneous terms and conditions.

James H. Keshian
Senior Attorney
Legal Department

300 Friberg Parkway
Westborough, MA 01581
(508) 836.7363
Fax: (508) 836.7039
jkeshian@nisource.com

April 25, 2003

Ms. Mary L. Cottrell, Secretary
Department of Telecommunications & Energy
One South Station
Boston, MA 02110

Re: Operational Services Agreement Between Bay State Gas Company and Northern Utilities, Inc.

Dear Ms. Cottrell:

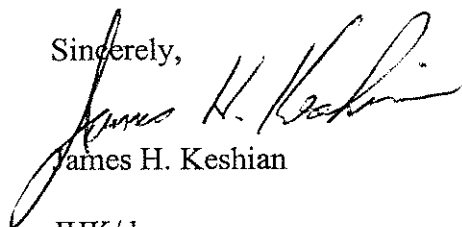
Enclosed for filing with the Department are three executed copies of the Operational Services Agreement ("Agreement") between Bay State Gas Company ("Bay State") and its affiliate, Northern Utilities, Inc. ("Northern"). The Agreement incorporates modifications recommended by the Maine Public Utilities Commission ("Maine PUC") and supercedes Bay State's previous filing of the Agreement with the Department dated November 22, 2002. This version of the Agreement was approved by the Maine PUC on March 3, 2003 and accepted by the New Hampshire Public Utilities Commission on April 14, 2003.

As compared to the form of Agreement filed on November 22, the enclosed Agreement includes some minor changes to the preamble to clarify certain language related to the apportionment of payments. It also includes certain substantive changes to the allocation method as set forth in Article III.2, which refines the allocation treatment of energy product and services charges. The Agreement also presents the Calculation of O&M Costs in a slightly different manner than the previous version.

The Agreement is being filed pursuant to the requirements of Chapter 164, § 85A of the General Laws of Massachusetts.

Please confirm your receipt of this submittal by stamping the enclosed copy of this letter and returning it to me in the envelope provided. My direct number is (508.836.7363) if you have any questions.

Sincerely,



James H. Keshian

JHK/dsm

Enclosure

cc: S. Bryant, V.P.

✓T. Birmingham

Operational Services Agreement

BETWEEN

BAY STATE GAS COMPANY

AND

NORTHERN UTILITIES, INC.

Effective Date

January 1, 2003

TABLE OF CONTENTS

ARTICLE I. *Definitions*

ARTICLE II. *Description of Operational Services*

ARTICLE III. *Computation of Compensation*

ARTICLE IV. *Computation of Direct Salary Charges*

ARTICLE V. *Process for Payment*

ARTICLE VI. *Inspection of Records*

OPERATIONAL SERVICES AGREEMENT

This Agreement is made as of January 1, 2003 by and between Bay State Gas Company (hereinafter called "Bay State") and its wholly owned subsidiary, Northern Utilities, Inc. (hereinafter called "Northern"). Bay State and Northern, collectively referred to herein as the "Companies".

The Companies are corporate affiliates in the NiSource Inc. System, which is comprised of NiSource Inc. and its corporate subsidiaries. Bay State and Northern each maintains an organization of personnel experienced in the operations of public utilities together with appropriate facilities and equipment through which each is prepared to furnish operational services to the other, as hereinafter provided.

The rendition of such services on a coordinated basis enables the recipients of such services to realize benefits through (1) efficient use of common operating management, personnel and equipment; (2) coordination of analysis and planning; and (3) availability of operating personnel and equipment which they may economically share.

All operating services will be performed at cost, which cost shall be fairly and equitably apportioned among such services, and in compliance with the Securities and Exchange Commission's rules promulgated under the Public Utility Holding Company Act of 1935.

The operational services to be rendered hereunder will be of substantially the same character and kind as each of Bay State and Northern presently perform for itself; and

NOW THEREFORE, Bay State and Northern, in consideration of the mutual agreements hereinafter contained, do hereby severally agree with each other that (1) Bay State and Northern may render to each other and Bay State and Northern will purchase from each other the operational services hereafter described at cost, and (2) the payments made by Bay State and Northern to each other hereunder shall be apportioned between their respective Bay State-Massachusetts (All), Bay State-Lawrence, Maine and New Hampshire retail service areas as appropriate and set forth in Schedule A, Exhibits 1, 2, and 3.

1. *Agreement to Furnish Services.* The operational services (and related equipment and materials) furnished hereunder shall be upon the terms and conditions set forth in Schedule A, which is attached hereto and constitutes a part hereof, such of the services described in Article II of said Schedule A, at such times, for such periods and in such manner, may from time to time be requested. Bay State and Northern will maintain organizations sufficient to render with efficiency and reasonable promptness such of the services described in Article II of said Schedule A as may reasonably be requested, but neither shall be obligated to perform any services hereunder without reasonable notice.

2. *Termination.* Either party hereto may terminate its participation in this Agreement upon not less than thirty (30) days' written notice to the other party; provided, however, that this Agreement shall be terminated automatically (i) to the extent that

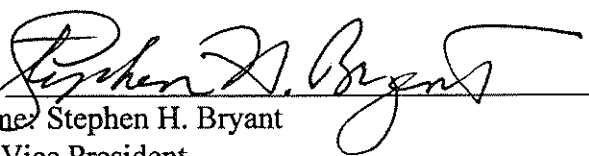
performance under this Agreement may conflict with any rule, regulation or order of the Securities and Exchange Commission adopted before or after the making of this Agreement, or (ii) if this Agreement shall become invalid or illegal under any state law or under any rule, regulation or order of any state commission or other state body having jurisdiction in the premises.

3. *Regulatory Approval.* The parties hereto acknowledge that this Agreement shall not become effective until all required regulatory approvals have been obtained. The amounts of compensation, charges for service, price or any other amount to be paid by Bay State for services rendered by Northern shall be subject to review and determination by the Massachusetts Department of Telecommunications and Energy in any proceeding brought under section ninety-three or ninety-four of M.G.L. Chapter 164.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date and year first above written.

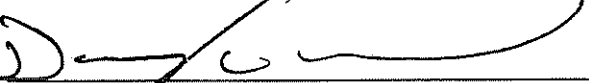
BAY STATE GAS COMPANY

By:


Name: Stephen H. Bryant
Its: Vice President

NORTHERN UTILITIES, INC.

By:


Name: Danny G. Cote
Its: General Manager

Schedule A

Operational Services Available to Client Methods of Charging Therefor and Miscellaneous Terms and Conditions of Operational Services Agreement

ARTICLE I. *Definitions*

The term "Operational Services Agreement" shall mean an agreement, of which this Schedule A constitutes a part, for the rendition of operational services and furnishing of related equipment and materials.

1. The term "Client" means the corporation (Bay State or Northern) to which operational services may be rendered under this Operational Services Agreement.
2. The term "Companies" means Bay State and Northern.

ARTICLE II. *Description of Operational Services*

The operational services and facilities which Bay State or Northern is prepared to render and furnish, as requested from time to time by the Client, are set forth in general terms below. The details listed under each heading are intended to be illustrative rather than inclusive and are subject to modification from time to time in accordance with the state of the art and the needs of the Client.

1. *Operations and Maintenance.* Advise and assist Client in obtaining all needed expert operations and maintenance ("O&M") services as may be required to plan for the construction, operation, maintenance and repair of the Client's facilities in order to serve customers and meet the demands of the Client's gas distribution system. Examples of such O&M services may include, but are not limited to, the following activities: billing, maintenance of customer records, data entry, call center, revenue recovery, gas dispatch, field dispatch, scheduling, storage of equipment and materials, engineering, the supervision of construction of new mains and services of the distribution system, the analysis, design and planning for gas operation and distribution functions, the construction, maintenance and operation of gas distribution system, the maintenance of gas appliances and equipment, energy products and services, demand side management services, inventory management, transportation operation services, operational development, safety and any other operational functions which either Bay State or Northern is capable of supplying the other.

Schedule A

2. *Budget and Financial Services.* Advise and assist the Client in matters involving the preparation and development of operating and capital budgets and budgetary controls. Prepare and implement plans for financing the capital needs of the Client.
3. *Marketing and Advertising.* Advise and assist the Client in the preparation and use of advertising and marketing, managing the development of residential, commercial and industrial business, and carrying out sales activities.
4. *Metering Services.* Advise and assist the Client in connection with all aspects of meter reading, testing, replacement and calibration. Advise and assist with planning, installation and operation of radio networks, remote control and other electronic or automated metering devices and methodologies.
5. *Employee Services.* Advise and assist the Client in connection with employee relations matters, including recruitment, employee placement, training, compensation, safety, labor relations and health, welfare, employee benefits, and other human resource-related activities.
6. *Office Space.* As may from time to time be available, provide suitable office space for the use of the Client and its officers and employees.
7. *Officers.* The Companies may elect to any office of Bay State and/or Northern any officer or employee of Bay State or Northern. Services rendered to the Client by such person as an officer shall be billed to the Client and paid for as provided in Articles III and IV.
8. *Miscellaneous Services.* Render to Client such other operational services, not hereinabove described, and any administrative services related to operational services as may properly be rendered by the Companies to such Client within the meaning and intent of the Public Utility Holding Company Act of 1935 and any other applicable statutes and the orders, rules and regulations of the Securities and Exchange Commission and any other governmental bodies having jurisdiction, as from time to time the Companies may be equipped to render and such Client may desire to have performed. The Companies may provide additional services, modify or exclude any of the described services as may be required in the future for the proper operation of Bay State and Northern.

Schedule A

ARTICLE III. *Computation of Compensation*

The amounts that the Client shall pay to the service provider (Bay State or Northern, as applicable) shall be determined as provided in this Article III.

All Operational Services

1. *Specific Direct Salary Charges to Client*

To the extent that time spent by the employees of Bay State or Northern engaged in rendering operational services to the specific Client, a direct salary charge, computed as provided in Article IV, shall be made to such Client.

2. *Apportioned Direct Salary Charges to Client*

To the extent that the time spent by such officers and employees is related to services rendered to Bay State and Northern generally, a direct salary charge, computed as provided in Article IV, shall be made to the appropriate Client generally, and allocated to the appropriate Clients on an equitable basis. See Attachment 1 of Schedule A for a list of the allocation bases to be used to distribute charges for Operational Services provided by or to Northern or Bay State, except for charges relating to Operational Services rendered by or to Bay State's Lawrence Division. See Attachment 2 of Schedule A for a list of the allocation bases to be used to distribute charges for Operational Services rendered by or to Bay State's Lawrence Division. See Attachment 3 of Schedule A for illustrative examples of the allocation bases and methods to be used to distribute charges for Operational Services specifically associated with the Inside Sales Group (e.g., Cost Center 05500), Gas Sales Management and Inside Sales Representatives (e.g., Cost Center 03500), Gas Sales and EP&S Management (e.g., Cost Center 05315), and Marketing and Advertising (e.g., Cost Center 03315). The data used for each basis will be updated semi-annually.

3. *Apportionment of Employee Benefits*

The employee benefit expenses which are related to direct salary charges made pursuant to sub-paragraphs (1) and (2) of Article III shall be apportioned based on a percentage of total benefits to total labor dollars.

Schedule A

4. *Other Expenses*

All expenses, other than salaries and employee benefit expenses, incurred by Bay State or Northern in connection with services rendered to a specific Client, such as travel expenses, shall be charged directly to the Client. All such expenses incurred by Bay State or Northern in connection with services rendered to Bay State and Northern generally, as described below, shall be apportioned in the manner set forth in subparagraph (2) of this Article III for the apportionment of salary charges. Such other general expenses ("Overhead") may include: rents; depreciation; amortization; interest; taxes; non-productive time of employees; compensation of employees performing office service functions; costs of general office supplies; charges for utility, maintenance and similar services; program fees and other fees; and all other such expenses normally treated as Overhead.

ARTICLE IV. *Computation of Direct Salary Charges*

The direct salary charge per hour which shall be made for the time of any employee for services rendered in any calendar month shall be computed by dividing his total compensation for such month by the aggregate of (1) the number of scheduled working hours for which he was compensated, including hours paid for but not worked, and (2) hours worked in excess of his regular work schedule, whether or not compensated for.

ARTICLE V. *Process for Payments*

1. *Statement of Charges*

As soon as practicable after the close of each month Bay State or Northern may issue to the Client an Invoice or make the appropriate inter-company journal entries (collectively a "Bill") with supporting Detail of Charges which will itemize the amounts due from the Client for Services, and other expenses for such month, computed pursuant to Articles III and IV. All amounts so billed shall normally be paid by the Client by the end of the month following the provision of such Operational Services and reflected as journal entries on the appropriate Client's General Ledger. To the extent required by law, all Bills rendered by Bay State or Northern to the Client shall be accompanied by a statement showing the manner in which such charged was determined and the cost to the Company of the service rendered.

Schedule A

2. *Information to be Furnished*

The Client will forward to the service provider from time to time, as requested, such financial and statistical information as the service provider may need to compute the charges payable by such Client upon such basis as may have been specified pursuant hereto.

ARTICLE VI. *Inspection of Records*

Each party agrees to keep its books and records available for inspection at all reasonable times by representatives of the Client in order that the correctness of the charges made hereunder for services to the Client may be verified by the Client.

* * * * *

Schedule A
Attachment 1
April-03

| Bay State Gas Company & Northern Utilities Three-Part Formula Used to allocate certain shared costs between Bay State and Northern Based on 2002 Data (in thousands) | | | | |
|---|------------------|--------------------------|----------------|-----------------|
| <u>Bases For Allocation</u> | <u>Bay State</u> | <u>New Hampshire</u> | <u>Maine</u> | <u>Total</u> |
| (1) Gross utility plant less goodwill | \$ 716,407,661 | \$ 88,515,163 | \$ 79,110,438 | \$ 884,033,262 |
| % of Total | 81.04% | 10.01% | 8.95% | 100.0% |
| (2) O&M net of Total management costs | \$ 60,309,678 | \$ 5,617,642 | \$ 4,230,291 | \$ 70,157,611 |
| % of Total | 85.96% | 8.01% | 6.03% | 100.0% |
| (3) Number of retail customers | 274,454 | 25,491 | 24,561 | 324,506 |
| % of Total | 84.58% | 7.86% | 7.57% | 100.0% |
| Total % | 251.58% | 25.88% | 22.55% | 300.0% |
| % of Total | 83.9% | 8.6% | 7.5% | 100.0% |
| Calculation of O&M Costs (Non-BSG Management Fee Costs) | Bay State | New Hampshire | Maine | Total |
| O&M per financial books | \$ 95,029,555 | \$ 9,461,368 | \$ 7,935,545 | \$ 112,426,468 |
| less 2002 BSG allocated costs | \$ (10,449,135) | \$ (1,410,118) | \$ (1,250,481) | \$ (13,109,734) |
| less 2002 Northern allocated costs | \$ (288,711) | \$ (74,036) | \$ (137,937) | \$ (500,684) |
| less -company 12 Costs | \$ (23,982,031) | \$ (2,359,572) | \$ (2,316,836) | \$ (28,658,439) |
| O&M net of BSG Mgmt Costs | \$ 60,309,678 | \$ 5,617,642 | \$ 4,230,291 | \$ 70,157,611 |
| % of Total | 86.0% | 8.1% | 6.0% | 100.0% |

Schedule A
Attachment 2
April-03

| Northern Utilities, Inc & Bay State Gas - Lawrence Division Two-Part Formula Used to allocate certain shared costs between BSG-Lawrence, NUI-ME and NUI-NH Based on 2002 Data | | | | |
|--|----------------------|--------------------------|----------------------|-----------------------|
| Bases for Allocation | Lawrence | New Hampshire | Maine | Total |
| (1) Gross utility plant less goodwill | \$ 92,350,879 | \$ 88,515,163 | \$ 79,110,438 | \$ 259,976,480 |
| % of Total | 35.5% | 34.0% | 30.4% | 100.0% |
| (2) Number of retail customers | 44,063 | 25,491 | 24,561 | 94,115 |
| % of Total | 46.7% | 27.1% | 26.1% | 100.0% |
| Total % | 82.2% | 61.1% | 56.5% | 200.0% |
| % of Total | 41.1% | 30.6% | 28.3% | 100.0% |

Schedule A
Attachment 3
Page 1 of 4
April-03

**Bay State Gas Company
& Northern Utilities
Cost Center 05500 Formula
Used to allocate certain shared costs
between Bay State and Northern
Based on 2002 Data**

| Bases For Allocating Non-Advertising Costs | Bay State | New Hampshire | Maine | Total |
|---|-----------|------------------|-------|-------|
| New Meters - 3 States | 3674 | 606 | 398 | 4678 |
| % of total | 79% | 13% | 9% | 100% |
| New Meters - 2 States | 3674 | 606 | | 4280 |
| % of total | 86% | 14% | | 100% |

| Bases For Allocating FTE Positions | | Mgr Bus Ctr 1.0 | Cust Rep 13.5 | Total FTE's 14.5 |
|---------------------------------------|--------------------------------------|--------------------|------------------|---------------------|
| Acct # | Description | | | |
| 518593 | Capital -Rentals | 5% | 5% | 0.73 |
| 641525 | Inc State -Mdse Supervision-Labor | 0% | 0% | 0.00 |
| 687914 | C/S Supervision-Labor | 0% | 0% | 0.00 |
| 687927 | Ind/Lab O&M Svc Wk | 5% | 5% | 0.73 |
| 689422 | Rntl Maint-Admin Salary | 10% | 10% | 1.45 |
| 691100 | New Business Supervision | 80% | 0% | 0.80 |
| 691600 | Sales Misc | 0% | 80% | 10.80 |
| Total FTE's | | | | 14.50 |

| Cost Center 05500 Allocation Results Non-Advertising Costs | | | | | |
|---|--------------------------------------|-------------|------------|------------|-----------|
| | | | Bay State | NH | ME |
| 3 State Allocation | | | 79% | 13% | 9% |
| 2 State Allocation | | | 86% | 14% | |
| Acct # | Description | Total FTE's | | | |
| 518593 | Capital -Rentals | 0.73 | 0.57 | 0.09 | 0.06 |
| 641525 | Inc State -Mdse Supervision-Labor | 0.00 | 0.00 | 0.00 | 0.00 |
| 687914 | C/S Supervision-Labor | 0.00 | 0.00 | 0.00 | 0.00 |
| 687927 | Ind/Lab O&M Svc Wk | 0.73 | 0.62 | 0.10 | 0.00 |
| 689422 | Rntl Maint-Admin Salary | 1.45 | 1.14 | 0.19 | 0.12 |
| 691100 | New Business Supervision | 0.80 | 0.63 | 0.10 | 0.07 |
| 691600 | Sales Misc | 10.80 | 8.48 | 1.40 | 0.92 |
| | | 14.50 | 11.44 | 1.89 | 1.17 |
| Final Allocation Percentages | | | 79% | 13% | 8% |

Schedule A
Attachment 3
Page 2 of 4
April-03

**Bay State Gas Company
& Northern Utilities
Cost Center 05315 Formula
Used to allocate certain shared costs
between Bay State and Northern
Based on 2002 Data**

| Bases For Allocating Non-Advertising Costs | Bay State | New Hampshire | Maine | Total |
|---|-----------|------------------|-------|-------|
| New Meters - 3 States | 3674 | 606 | 398 | 4678 |
| % of total | 79% | 13% | 9% | 100% |
| New Meters - 2 States | 3674 | 606 | | 4280 |
| % of total | 86% | 14% | 0% | 100% |

| Bases For Allocating FTE Positions | | Director | C&I Rep | KA Rep | Total FTE's |
|---------------------------------------|-----------------------|----------|---------|--------|-------------|
| | | 1.0 | 2.0 | 1.0 | 4.0 |
| Acct # | Description | | | | |
| 518593 | Capital -Rentals | 5% | 0% | 0% | 0.05 |
| 641525 | Inc State -Mdse | 0% | 0% | 0% | 0.00 |
| | Supervision-Labor | | | | |
| 687914 | C/S Supervision-Labor | 3% | 0% | 0% | 0.03 |
| 687927 | Ind/Lab O&M Svc Wk | 0% | 0% | 0% | 0.00 |
| 689422 | Rntl Maint-Admin | 3% | 0% | 0% | 0.03 |
| | Salary | | | | |
| 691100 | New Business | 90% | 100% | 100% | 3.90 |
| | Supervision | | | | |
| 691600 | Sales Misc | 0% | 0% | 0% | 0.00 |
| Total FTE's | | | | | 4.00 |

| Cost Center 05315 Allocation Results Non-Advertising Costs | | | | | |
|---|-----------------------|-------------|-----------|------|------|
| | | | Bay State | NH | ME |
| 3 State Allocation | | | 79% | 13% | 9% |
| 2 State Allocation | | | 86% | 14% | |
| Acct # | Description | Total FTE's | | | |
| 518593 | Capital -Rentals | 0.05 | 0.04 | 0.01 | 0.00 |
| 641525 | Inc State -Mdse | 0.00 | 0.00 | 0.00 | 0.00 |
| | Supervision-Labor | | | | |
| 687914 | C/S Supervision-Labor | 0.03 | 0.03 | 0.00 | 0.00 |
| 687927 | Ind/Lab O&M Svc Wk | 0.00 | 0.00 | 0.00 | 0.00 |
| 689422 | Rntl Maint-Admin | 0.03 | 0.02 | 0.00 | 0.00 |
| | Salary | | | | |
| 691100 | New Business | 3.90 | 3.06 | 0.51 | 0.33 |
| | Supervision | | | | |
| 691600 | Sales Misc | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 4.0 | 3.16 | 0.52 | 0.33 |
| Final Allocation Percentages | | | 79% | 13% | 8% |

Schedule A
Attachment 3
Page 3 of 4
April-03

**Bay State Gas Company
& Northern Utilities
Cost Center 03500 Formula
Used to allocate certain shared costs
between Bay State and Northern
Based on 2002 Data**

| Bases For Allocating Non-Advertising Costs | Bay State | New Hampshire | Maine | Total |
|---|-----------|------------------|-------|-------|
| New Meters - 3 States | 3674 | 606 | 398 | 4678 |
| % of total | 79% | 13% | 9% | 100% |
| New Meters - 2 States | 3674 | 606 | | 4280 |
| % of total | 86% | 14% | 0% | 100% |

| Bases For Allocating FTE Positions | | Mgr Install | B/D Rep | Rptg/Datab | Total FTE's |
|---------------------------------------|-----------------------|-------------|---------|------------|-------------|
| | | 1.0 | 1.0 | 1.0 | 3.0 |
| Acct # | Description | | | | |
| 518593 | Capital -Rentals | 10% | 0% | 0% | 0.10 |
| 641525 | Inc State -Mdse | 90% | 0% | 0% | 0.90 |
| | Supervision-Labor | | | | |
| 687914 | C/S Supervision-Labor | 0% | 0% | 0% | 0.00 |
| 687927 | Ind/Lab O&M Svc Wk | 0% | 0% | 20% | 0.20 |
| 689422 | Rntl Maint-Admin | 0% | 0% | 0% | 0.00 |
| 691100 | New Business | 0% | 100% | 80% | 1.80 |
| | Supervision | | | | |
| 691600 | Sales Misc | 0% | 0% | 0% | 0.00 |
| Total FTE's | | | | | 3.00 |

| Cost Center 03500 Allocation Results Non-Advertising Costs | | | | | |
|---|-----------------------|-------------|------------|------------|-----------|
| | | | Bay State | NH | ME |
| 3 State Allocation | | | 79% | 13% | 9% |
| 2 State Allocation | | | 86% | 14% | |
| Acct # | Description | Total FTE's | | | |
| 518593 | Capital -Rentals | 0.10 | 0.08 | 0.01 | 0.01 |
| 641525 | Inc State -Mdse | 0.90 | 0.77 | 0.13 | 0.00 |
| | Supervision-Labor | | | | |
| 687914 | C/S Supervision-Labor | 0.00 | 0.00 | 0.00 | 0.00 |
| 687927 | Ind/Lab O&M Svc Wk | 0.20 | 0.17 | 0.03 | 0.00 |
| 689422 | Rntl Maint-Admin | 0.00 | 0.00 | 0.00 | 0.00 |
| 691100 | New Business | 1.80 | 1.41 | 0.23 | 0.15 |
| | Supervision | | | | |
| 691600 | Sales Misc | 0.00 | 0.00 | 0.00 | 0.00 |
| | | 3.0 | 2.44 | 0.40 | 0.16 |
| Final Allocation Percentages | | | 81% | 13% | 5% |

Schedule A
Attachment 3
Page 4 of 4
April-03

| Bay State Gas Company & Northern Utilities Cost Center 03315 Formula | | | |
|--|------------------|-----------|-----------|
| Used to allocate certain shared advertising and marketing costs originating in Cost Centers 03500, 05315, & 05500 | | | |
| <u>Based on 2002 Data</u> | | | |
| | Bay State | NH | ME |
| Guardian Care Campaign Distribution | 92% | 8% | 0% |

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE ATTORNEY GENERAL
D.T.E. 05-27

Date: August 24, 2005

Responsible: Stephen H. Bryant, President

RR-AG-78: Attachment DTE-1-20(b) and Attachment DTE-1-20(c), dated February 20, 1998, and September 23, 1998 respectively, represent lease agreements with Fleet Capital for approximately 32,000 automated meter reading units from Itron. Confirm that the units were actually placed in service, and indicate the ownership of the units.

Response: The units were carried on the Company's books as construction work in progress until a significant number had been installed and placed in service. At that point, the units were removed from the Company's books when the units were sold to Fleet and leased back to the Company. The sale to Fleet was made at the book value of the units.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE ATTORNEY GENERAL
D.T.E. 05-27

Date: August 24, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

RR-AG-092: Regarding response to DTE-6-13, provide the 2004 amount of fixed rent and lease expense.

Response: Table RR-AG-092 below lists the major components of lease expense as shown in DTE-6-13.

TABLE RR-AG-092

| <u>Item</u> | <u>Amount</u> <u>(\$)</u> |
|--|--------------------------------------|
| Westborough lease costs – Net of sub lease | 1,020,420 |
| Meter reading devices (ITRON primarily) | 1,895,639 |
| LNG Facilities | 846,260 |
| Leased Microwave lines | 663,791 |
| Other lease rent expense | <u>671,096</u> |
| Total | 5,097,206 |

The Westborough building, the meter reading devices and the LNG facilities are tied to long-term leases with step up clauses. Specially, the LNG facilities have a step up in May 2006, the Westborough building in July 2006, and the meter reading devices over the next several years. The remaining lease expense is based on short-term agreements and generally driven by variable charges and turnover of equipment leased.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE ATTORNEY GENERAL
D.T.E. 05-27

Date: August 24, 2005

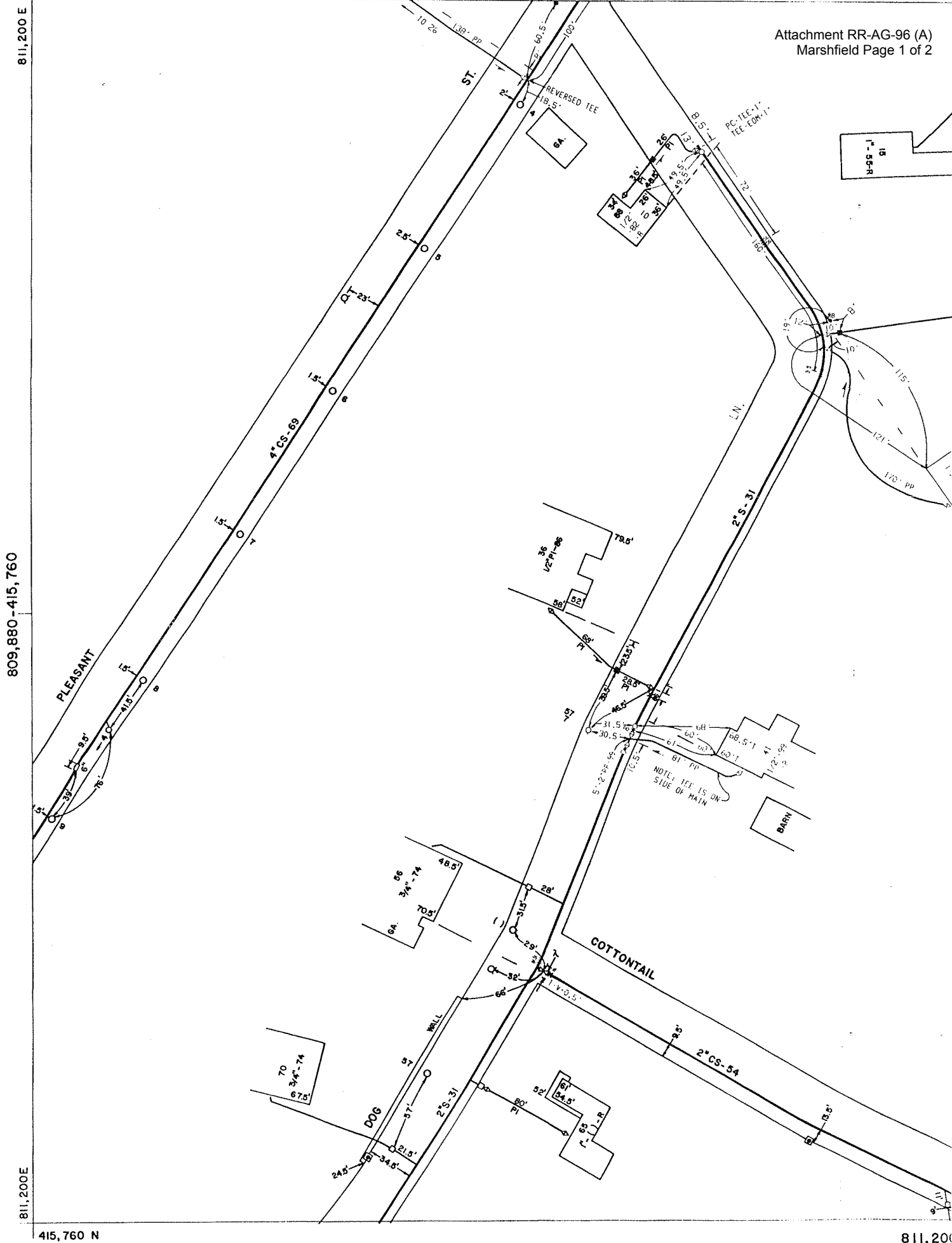
Responsible: Danny G. Cote, Manager

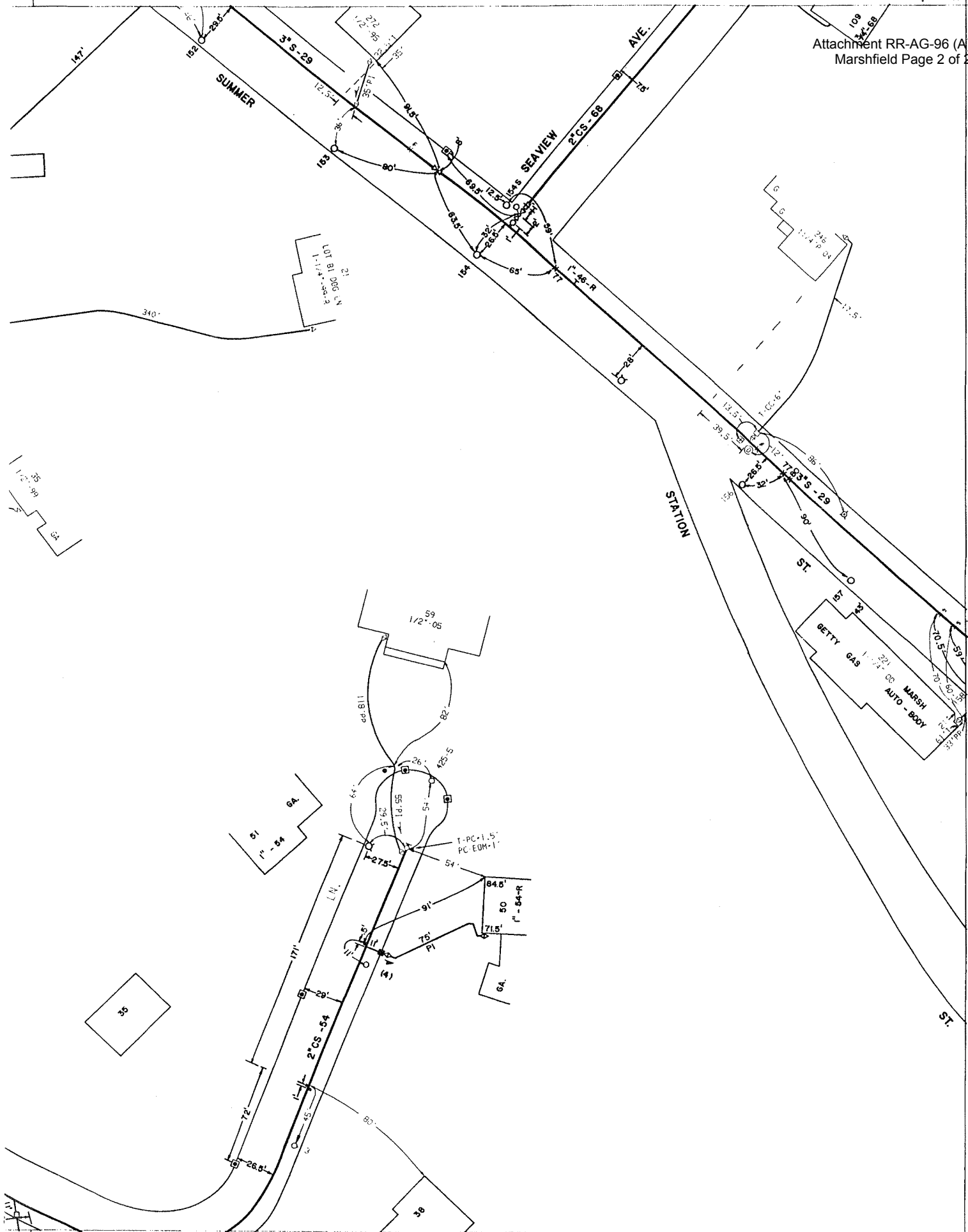
RR-AG-96: If available, produce a copy of one of the system maps (circa 1970-1971), which was scanned into the Company's imaging system.

Response: The Brockton Division mapping system was set up in the 1971 – 1972 time frame.

In 1990 all of the maps were scanned into a database that supports the CAD (computer aided drafting) system currently being used, and these maps are periodically updated.

See Attachments RR-AG-96 (A) and (B) for copies of two Brockton Division maps.





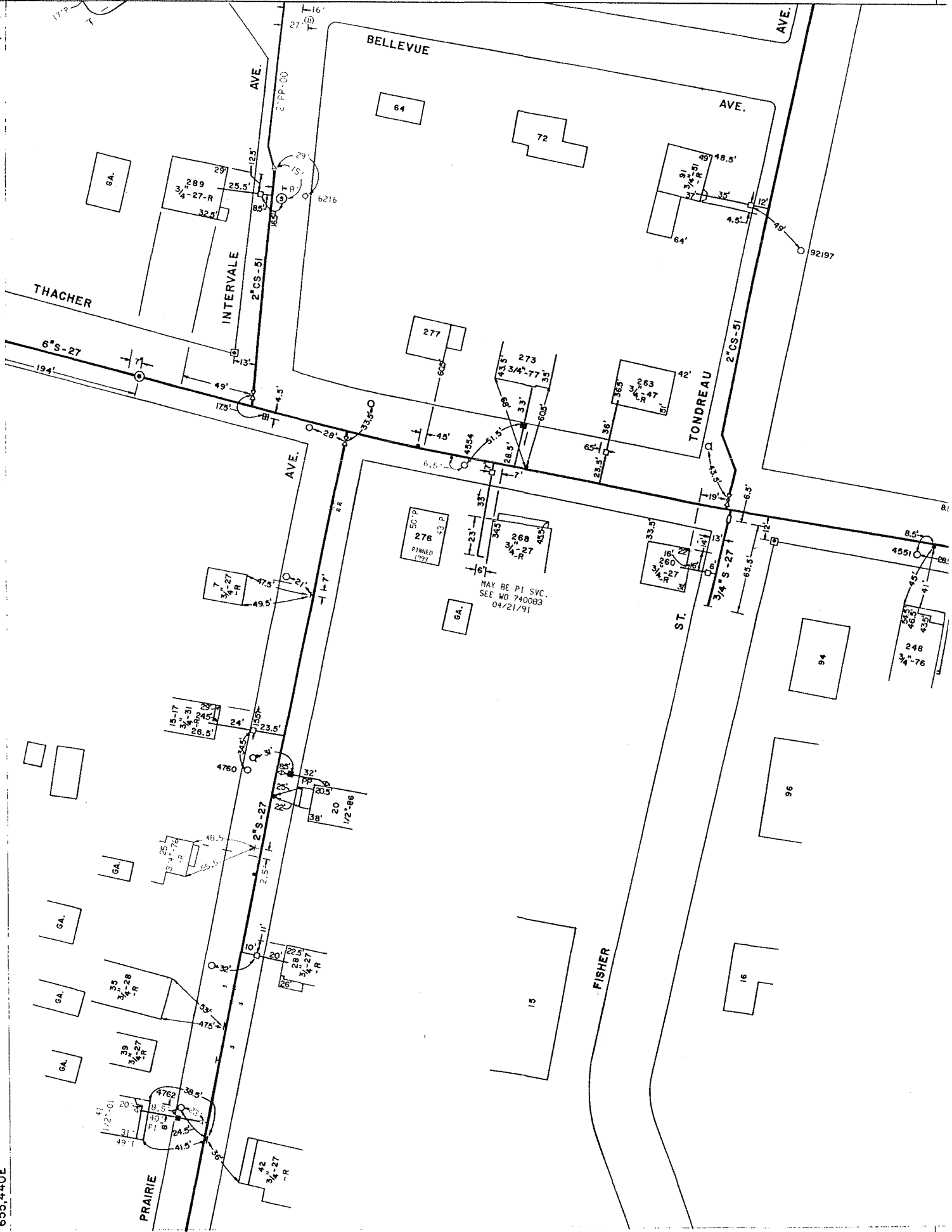
655,440E

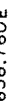
340,080N

654,120-339,200

655,440E

339,200N





COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE ATTORNEY GENERAL
D.T.E. 05-27

Date: August 24, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

RR-AG-98: Provide the amount of the service-company rents that are fixed and included in the 2004 cost of service.

Response: Table RR-AG-98 below lists the major components of service-company rents. The I/C Office Space is tied to a long-term lease. The other items vary monthly and subject to price increases based on replacements, upgrades and turnover even though they are generally tied to a fixed, more short-term agreement.

Table RR-AG-98

| <u>Item</u> | <u>Amount</u> <u>(\$)</u> |
|--|--|
| I/C Office Space | 1,347,833 |
| Rents Other - Includes Cell Phones and Pages | 502,179 |
| Electronic Data Processing | 354,375 |
| Transportation (autos and aircraft) | 84,039 |
| Office Machines and Furnishings | 7,895 |
| Buildings & Land | <u>6,202</u> |
| | 2,302,522 |

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE D.T.E.
D.T.E. 05-27

Date: August 24, 2005

Responsible: Danny G. Cote, General Manager

RR-DTE-153: Provide incremental costs in DTE-3-21 for List No. 11, 16, 29, 30, 36, 42, 43, 44, 68, 79, 85, 95, 96, 98, 101 and 106.

Response: Bay State has consistently used the least cost pipe size and material that met the present and anticipated future requirements of the specific system design need when constructing its replacement main facilities. The Company made this determination based on its extensive operating experience and a full understanding of all of the various considerations that go into maintaining a safe, reliable, and cost effective natural gas distribution infrastructure over the long term. In addition, the Company replaced only the portion of each section of its system that was necessary to maintain service. Further, it should also be recognized that Bay State's facilities replacement practices did not always result in the Company realizing the maximum potential capacity possible, but rather resulted in the best overall value for ratepayers based on the Company's estimate of present and future system needs. In addition, the Company has demonstrated the prudence of these main replacement investments in the design and installation of its facilities as illustrated by its success in reliably delivering natural gas to its customers under the more than peak demand weather conditions that were experienced in Massachusetts on January 16, 2004. Therefore, all of the main replacement investments Bay State has made in its system (including all of the examples shown below) should be included in the Company's plant in service and fully recovered as part of this rate case.

The following is a list of the common considerations the Company takes into account when designing replacement main facilities. Included are certain reasons why like-for-like size and material replacement are either not optimal (or in some cases even possible). In addition, Bay State also explains why it is prudent to build in necessary long-term system capacity during main replacement construction, including additional facilities as necessary, to increase system peak day capacity.

1. Standard industry practice is that, when replacing main facilities for (1) municipal improvement, (2) main replacements for safety and reliability, or (3) main replacements for any other cause, local distribution companies ("LDCs") should replace these facilities with sufficient capacity to meet future anticipated demand. This is because the cost of construction (typically between \$55.00 and \$150.00 per foot) is so great, and the excavation in the city streets and state highways is so disruptive to the public, that LDCs do not want to be faced with replacing facilities sooner than necessary due to inadequate capacity or too narrow an assessment of system load growth.

In addition, when main replacement work is done in conjunction with municipal road work, then replacement costs to the LDC are typically much less than they otherwise would be. This is because the amount of pavement restoration needed to complete the LDC's work, which is a very expensive component of the total job, is usually much less than it otherwise would be.

In sum, prudent and responsible LDCs must be proactive in designing these very expensive replacement facilities to supply anticipated future loads, because over time the costs to future customers would be much greater than otherwise necessary. The Company's main replacement strategy simply recognizes the basic economic principle that it is less expensive to do a job once than it would be to do it twice, particularly if the cause for having to do the job a second time is because the first design wasn't robust enough to meet reasonable expectations of future load requirements.

2. Incremental capacity through pipe enlargement is very inexpensive if done at the time of main replacement construction. For example, the incremental portion of a main replacement job (i.e., the portion of the total project costs related to pipe size and type) associated with replacing 4" bare steel with 4" coated, cathodically protected steel (which would be like-for-like replacement) is \$16.31 per foot. The cost of performing this same replacement with 8" polyethylene is \$17.09, a difference of \$0.78 cents per foot. However, in terms of incremental system delivery capacity, the incremental investment of \$0.78 cents per foot to purchase and install 8" polyethylene pipe produces two and one half times more system capacity than the 4" size-for-size replacement would produce.
3. Steel pipe is more expensive both to purchase and to install than the same diameter (or in many cases even larger diameter) polyethylene pipe, but also has more throughput capacity, because steel-piping systems can operate at higher pressures than polyethylene piping systems. For example, a 4" high-density polyethylene main at 99 PSI (it's maximum allowable operating pressure under current federal code) can deliver 202,934 cubic feet per hour ("CFH") of gas, while a 4" steel main at 200 PSI (well below it's maximum allowable distribution pressure) can deliver 476,542 CFH, an increase in capacity of roughly 235%.

If LDCs, including Bay State, were to simply replace existing pipe with either the same type or same size of pipe (e.g., replace 2" bare steel pipe with new 2" coated cathodically protected pipe, or 4" bare steel with 4" coated steel pipe), then both the overall system cost and system capacity would be much greater than that which is actually occurring. However, recognizing the tradeoffs of capacity and cost in their systems, responsible operators design with the best mix of steel pipe where necessary to achieve higher operating pressures and more capacity, and polyethylene pipe to

capture lower installation costs where the system can accommodate lower pressures, with both designs producing the best overall result for customers.

So by following Bay State's current design practice of replacing bare steel (or cast iron) systems with an intelligent mix of same size polyethelene, larger diameter polyethelene, and occasionally, larger diameter coated steel, the Company provides it's ratepayers the greatest system safety and reliability at the best cost.

4. For cast iron replacement projects, either steel or plastic must be used as a replacement material. Since 1970, federal code has prohibited the use of new cast iron installations in distribution systems. In addition, MA CMR 220 requires that any cast iron that is undermined by construction, either by being crossed (excavated under) or by parallel trenching that may produce ground movement that could affect the cast iron, must be replaced.

All calculations used to determine the appropriate replacement pipe type and size for purposes of responding to RR-DTE-153 are based on today's incremental costs and capacity analysis as provided in RR-DTE-105. These estimates are not adjusted for what the incremental cost differences might have been back to 1993, because the Company does not have the ability to easily reconstruct pipe and contractor cost comparisons from that time, and as a result cannot be totally accurate in assessing incremental construction differences. Further, for the basis of this analysis the current incremental cost per foot of new 12" coated, cathodically protected steel, which was not previously estimated as part of the Company's response to RR-DTE-105, is estimated to be \$46.83 per foot based on recent pipe purchases (\$23.33 p/f) and installation bids (\$23.50 p/f).

Finally, because cast iron and steel are closer material types than cast iron and plastic, and because steel has been used in the industry as the standard replacement material type for a longer period of time, this estimation comparison assumes that coated steel would be the material of choice for comparable estimating purposes when replacing cast iron.

The remainder of this response specifically addresses the incremental costs associated with the following projects identified in DTE-3-21: List Nos. 11, 16, 29, 30, 36, 42, 43, 44, 68, 79, 85, 95, 96, 98, 101 and 106.

List No. 11

This project is associated with a municipal improvement project that included the replacement of 4,190 feet of 6" cast iron main, and 575 feet of 4" wrought iron, with 3,063 feet of 8" polyethelene and 703 feet of 4" polyethelene respectively. It should also be noted that this main was replaced because MA CMR 220 rules require that cast iron main potentially impacted by areas of construction must be replaced. Since cast iron is no longer an acceptable material to install in gas systems, the only other operational alternatives to compare like-for-like replacement is to use 6" coated steel or polyethelene, and for the basis of this analysis coated steel is used as the alternate material.

The incremental cost difference for the various segments is as follows:

- 6" coated steel (to replace 6" cast iron) vs. the 8" polyethelene that was actually used is (minus) -\$1.37 per foot or a saving of -\$4,205 for this portion of the project.
- 46" coated steel (to replace 4" wrought iron) vs. the 4" polyethelene that was actually used is (minus) -\$7.99 per foot or a saving of -\$5,494 for this portion of the project.
- Further, since the Company did not simply put back all of the footage it took out of service it saved the actual average per foot project cost of \$132.45 per foot or for the 999 feet of main it did not replace, the Company reduced the cost of this project by -\$132,317.

Therefore, by replacing less expensive polyethelene pipe for steel pipe (which would be the case in like-for-like replacement) and by reducing the scope of the project and not replacing the total amount of main abandoned, the Company actually saved \$136,522 compared to type-to-type, size-for-size, and length-for-length replacement.

List No. 16

This project is associated with the replacement of 741 feet of 2" coated steel main with 1006 feet of 12" and 10" coated steel main. This work was undertaken to tie-in the new Sharon Gate Station to the Brockton distribution system to provide an adequate gas supply to the Brockton system for peak day needs.

The incremental cost difference for the various segments is as follows:

- 2" coated steel (to replace the coated steel) vs. the 12" coated steel that was actually used is \$36.31 per foot, or \$26,905 for this segment of the project.
- Further, an additional 264 feet of pipe was installed that was not considered replacement pipe (to connect to the new gate station) at an average cost per foot of \$102.99, or a total cost of \$27,189.00.

Therefore, the total incremental difference in project cost is \$54,094.

List No. 29

This project is associated with the replacement of 2000 feet of 4" cast iron main with 2000 feet of 8" polyethelene pipe. The purposes for the project included the replacement of 1898 Cast Iron and additional capacity to the area. Since cast iron is no longer an acceptable material to install in gas systems, the only other operational alternatives to compare like-for-like replacement to this would be to either replace the cast iron with 4" polyethelene, or 4" coated steel. And for the basis of this analysis the comparison is being based on 4" steel as, for the reasons stated in the assumptions, steel is the more similar material.

The incremental cost difference for the various segments is as follows:

- 4" coated steel (to replace the 4" cast iron) vs. the 8" polyethelene that was actually used is \$.78 per foot or \$1,560 for this project.

Therefore, the total incremental cost difference in this project compared to like-for-like replacement (substituting 4" coated steel for 4" cast iron) is \$1,560.

List No. 30

This project is associated with the replacement of 3,870" feet of 8" bare steel main with 3702" feet of 12" coated, cathodically protected main. The purposes for the project included the replacement of 8" bare steel, and additional capacity to the area.

The incremental differences in costs for the various segments is as follows:

- 8" coated steel (to replace 8" bare steel) vs. the cost of 12" coated steel that was actually used is \$21.15 per foot or \$78,297 for this portion of the project.
- Further, by not replacing the total footage of main abandoned, the Company saved \$38.87 per foot or \$6,530 for the project.

Therefore the total incremental cost for 12" coated steel vs. 8" coated steel is \$78,371 for the entire project minus the amount saved by not replacing the 8" steel for the entire job which equals \$6,530, so the total incremental difference in project cost is \$71,841.

List No. 36

This project is associated with the replacement of 650 feet of 2" bare steel, 240 feet of 4" cast iron, and 140 feet of 6" cast iron with 1,030 feet of 8" polyethelene. The purposes for the project included the replacement of the 2", 4", & 6" bare steel and cast iron, and to add additional capacity to the area.

The incremental differences in costs for the various segments is as follows:

- 2" coated steel (to replace the 2" bare steel) vs. the 8" polyethelene that was actually used is \$6.57 per foot or \$4,270 for this portion of the project.
- 4" coated steel (to replace 4" cast iron) vs. the 8" polyethelene that was actually used is \$0.78 per foot or \$187.20 for this portion of the project.
- 6" coated steel (to replace 6" cast iron) vs. the 8" polyethelene that was actually used is (minus) -\$1.36 per foot or (minus) -\$190.40 for this portion of the project.

Therefore, the cost difference in replacing this project size-for-size with steel main vs. the 8" polyethelene that was actually installed is \$4,267.

List No. 42

This project is associated with the replacement of 1,360 of 2" bare steel, and 2,570 feet of 4" bare steel with 6,948 of 12" coated, cathodically protected steel. The purposes for the project included the replacement of the 2" & 4" bare steel, and to add additional capacity to the area.

The incremental differences in costs for the various segments is as follows:

- 2" coated steel (to replace 2" bare steel) vs. the 12" coated steel that was actually used is \$36.31 per foot or \$49,381 for this portion of the project
- 4" coated steel (to replace 4" bare steel) vs. the 12" coated steel that was actually used is \$30.52 per foot or \$78,436 for this portion of the project.
- Further, an additional 3,018 feet of 12" coated, cathodically protected steel was installed to provide sufficient capacity to meet our peak day load requirements in the area at a cost of \$141.83 per foot or \$426,986 for this portion of the project.

Therefore the total incremental cost of enlarging the size of the replacement pipe and expanding the project length to meet our system needs was \$554,803.

List No. 43

This project is associated with the replacement of 1,030 feet of 2" bare steel, and 1,880 feet of 4" bare steel with 990 feet of 2" polyethelene and 2,282 feet of 8" coated, cathodically protected main respectively. This project was driven by municipal improvement work and the age and condition of the existing facilities.

The incremental cost difference for the various segments is as follows:

- 2" coated steel (to replace 2" bare steel) vs. the 2" polyethelene that was actually used is (minus) -\$3.76 per foot or -\$3,722 for this portion of the project.
- 4" coated steel (to replace 4" bare steel) vs. the 8" coated steel that was actually used is \$9.37 per foot or \$17,615 for this portion of the project.
- Further, an additional 402 feet of 8" coated steel was installed at an average cost of \$38.55 per foot or \$15,497.

Therefore the total incremental cost of enlarging the size of the replacement pipe and expanding the project length slightly was \$29,390.

List No. 44

This project is associated with the replacement of 520 feet of 2" (poorly) coated 1954 steel with 2" coated steel, and 6,190 feet of 8" bare steel with 6,320 of 12" coated, cathodically protected steel. The purposes for the project included the replacement of the 2" & 4" bare steel, and to add additional capacity to the area.

The incremental cost difference for the various segments is as follows:

- There is no incremental cost difference in replacing 2" bare steel with 2" coated steel for this portion of the project.

- 8" coated steel (to replace 8" bare steel) vs. the 12" coated steel that was actually used is \$21.15 per foot or \$133,668 for this portion of the project.

Therefore the total incremental cost of enlarging the size of the replacement pipe and expanding the project length slightly was \$133,668.

List No. 68

This project is associated with the replacement of 12,750 feet of 6" bare steel, 110 feet of 6" coated unprotected steel, 20 feet of 6" polyethelene, 781 feet of 4" bare steel, 40 feet of 3" bare steel, and 660 feet of 2" bare steel, with 13,390 feet of 12" coated steel, 27 feet of 6" polyethelene, 579 feet of 4" polyethelene, 371 feet of 2 " coated steel, and 306 feet of 2" polyethelene. The purpose of this project was to replace old bare steel pipe during municipal street reconstruction.

The incremental cost difference for the replacement of the 6" bare steel segment with the 12" coated steel replacement segment (which was the only substantive size difference in the project) is as follows:

- 6" coated steel (to replace 6" bare steel) vs. the 12" coated steel that was actually used is \$28.38 per foot or \$380,008.

Therefore the total incremental cost of enlarging the size of the replacement pipe was \$380,008.

List No.79

This project is associated with the replacement of 98 feet of 2" bare and coated unprotected steel main, 17 feet of 4" coated unprotected steel main, and 5,496 feet of 4" bare and coated unprotected steel with 98 feet of 2" polyethelene and 5,496 of 4" & 6" polyethelene respectively (the 4" portion of this was 112 feet). This project was driven by municipal improvement work and the age and condition of the existing facilities.

The incremental cost difference for the various segments is as follows:

- 2" coated steel (to replace 2" bare or coated unprotected steel) vs. the 2" polyethelene that was actually used is (minus) -\$3.76 per foot or -\$368 for this portion of the project.
- 4" coated steel (to replace 4" bare or coated unprotected steel) vs. the 6" polyethelene that was actually used is (minus) -\$4.68 per foot or -\$25,721 for this portion of the project.

Therefore the total incremental cost savings by substituting polyethelene for steel (despite the increased pipe diameter) was a saving of -\$26,089.

List No. 85

This project is associated with the replacement of 6,250' of 12" coated steel, 1,250 feet of cast iron, 80 feet of wrought iron, and 125 feet of 1.25" wrought iron, with 5,225 feet of 16" coated steel and 125 feet of 1" coated steel. This project was necessary because the MBTA who's property these facilities were on required us to relocate the gas facilities off of their ROW.

The incremental cost difference for the various segments is as follows:

- 12" coated steel (to replace 12" coated steel) vs. the 16" coated steel that was actually used is \$62.17 per foot, which at today's cost would be \$324,838 for this portion of the project.
- Since this is more than the entire cost of this project in 1995, which was \$250,733, it is clear that using current costs for 16" coated steel installations is not a good basis for comparison.

Therefore the Company cannot produce a creditable cost difference analysis for this project due to the very limited use today of 16" coated steel, (thus there is little data on steel prices or contractor costs), and a lack of comparative incremental cost data for the difference between 12" and 16" installation in 1995.

All of that said, if forced to assign an incremental cost the Company estimates that 35% of the actual cost was related to the incremental difference in pipe size or approximately \$87,756 in incremental cost for the total project.

List No. 95

This project is associated with the replacement of 6,587 3" bare steel, 660 feet of 1.5" bare steel, and 4,965 feet of 2" bare steel, with 6,187 feet of 8" coated steel main. This project was necessary due to municipal work in the area, and addressed both the age and condition of the existing facilities as well as providing increased capacity to the system.

The incremental cost difference for the various segments is as follows:

- 4" coated steel (to replace 3" bare steel) vs. the 8" coated steel that was actually used is \$9.37 per foot or \$57,972 for this portion of the project.
- That said, 6025 feet of 3", 2" and 1.5" bare steel was abandoned. If these facilities had simply been replaced size-for-size with 2" coated steel at an average total cost of \$30.00 per foot, the total project would have cost an additional \$180,750.

Therefore, by reducing the scope of the job and not replacing the entire length of pipe that was abandoned, the Company saved \$122,778 despite the increase in pipe diameter on the portion of system that was replaced.

List No. 96

This project is associated with the replacement of 3,140 feet of 8" cast iron, 3,650 feet of 6" cast iron, 1,600 feet of 4" cast iron, 846 feet of 6" bare and unprotected coated steel, 200 feet of 4" bare steel, 2,015 feet of bare and unprotected coated steel, 280

feet of 2" bare steel, 380 feet of 4" wrought iron, 990 feet of 2" wrought iron, and 620 feet of 1.25" wrought iron pipe with 9,400 feet of 8" coated steel, 540 feet of 12" steel, and 4,033 feet of 2" polyethelene respectively. This project was necessary due to municipal work in the area, and addressed both the age and condition of the existing facilities as well as providing increased capacity to the system.

The incremental cost difference for the various segments is as follows:

- 8" coated steel (to replace 8" cast Iron) vs. the 12" coated steel that was actually used is an incremental \$21.15 per foot or \$10,998 for this portion of the project.
- 8" coated steel to (replace 8" cast iron) is like-for-like size and since cast iron cannot be used, steel is the closest material substitute, so there is no difference in cost for this portion of the project.
- 6" coated steel (to replace 6" cast Iron) vs. the 8" coated steel that was actually used is an incremental \$7.23 per foot or \$26,389 for this portion of the project.
- 6" coated steel (to replace 6" bare and coated unprotected steel) vs. the 8" coated steel that was actually used is an incremental \$7.23 per foot or \$6,116 for this portion of the project.
- 4" coated steel (to replace 4" bare steel and wrought iron) vs. the 8" coated steel that was actually used is an incremental \$9.37 per foot or \$5,434 for this portion of the project.
- 4" coated steel (to replace 3" bare steel) vs. the 8" coated steel that was actually used is an incremental \$9.37 per foot or \$15,966 for this portion of the project.
- 4" coated steel (to replace 4" bare steel wrought iron) vs. the 2" polyethelene that was actually used is an incremental saving of (minus) - \$9.55 per foot or a saving of \$2,970 for this portion of the project.
- 2" coated steel (to replace 2" bare steel and wrought iron) vs. the 2" polyethelene that was actually used is an incremental saving of (minus) - \$3.76 per foot or \$5,903 for this portion of the project.
- 2" coated steel (to replace 1.25" wrought iron) vs. the 2" polyethelene that was actually used is an incremental saving of (minus) -\$3.76 per foot or \$2,331 for this portion of the project.

Therefore the total incremental cost to the project was \$53,699. This occurred as a result of enlarging the diameter of some sections as pipe to increase capacity, substituting polyethelene for coated steel pipe in other sections to reduce cost, while eliminated nearly 3 miles of old bare steel, wrought iron and cast iron, in an area of municipal construction.

List No. 98

This project is associated with the replacement of 4,220 feet of 4" bare steel main, and 160 feet of 2" bare steel main, with 4,220" of 8" coated steel and 160" of 2" polyethelene respectively. The purpose of this project was to replace old bare steel pipe during municipal street reconstruction, and to add thru-put capacity to the system.

The incremental cost difference for the various segments is as follows:

- 4" coated steel (to replace 4" bare steel) vs. the 8" coated steel that was actually used is an incremental \$9.37 per foot or \$39,541 for this portion of the project.
- 2" coated steel (to replace 2" bare steel) vs. the 2" polyethelene that was actually used is an incremental (minus) -\$3.76 per foot or -\$601 for this portion of the project.

Therefore the total incremental cost of enlarging the size of the replacement pipe minus the savings of substituting the 2" polyethelene for the 2" coated steel was \$38,939.

List No. 101

This project is associated with the replacement of 4,509 feet of 4" bare steel, 513 feet of 6" coated steel, 220 feet of 4" coated steel 735 feet of 2" bare steel, with 5,246 feet of 8" coated steel. The purpose of this project was to add incremental capacity to the Seekonk system to avoid possible service interruptions during the winter of 1993\1994. As an additional benefit, approximately 1 mile of 4" and 2" bare steel was eliminated from the system.

The incremental cost difference for the various segments is as follows:

- 4" coated steel (to replace 4" bare steel) vs. the 8" coated steel that was actually used is an incremental \$9.37 per foot or \$42,249 for this portion of the project.
- 2" coated steel (to replace 2" bare steel) vs. the 8" coated steel that was actually used is an incremental \$15.16 per foot or \$11,142 for this portion of the project.

Therefore the total incremental cost of enlarging the size of the replacement pipe was \$53,391 for the total project.

List No. 106

This project is associated with the replacement of 4,290 feet of 3" bare steel, and approximately 150 feet of assorted 2" and 3" coated steel mains with 4,290" of 8" coated steel, and approximately 150 feet of 4" and 2" polyethelene respectively. The purpose of this project was to add incremental capacity to the Brant Rock section of the Marshfield system to avoid possible service interruptions during the winter of 1992\1993. As an additional benefit, approximately 4,290" of 3" bare steel main was eliminated from the system.

The incremental cost difference for the various segments is as follows:

- 4" coated steel (to replace 3" bare steel) vs. the 8" coated steel that was actually used is an incremental \$9.37 per foot or \$40,197 for this portion of the project.

- 2" coated steel (to replace the assorted 2" and 3" coated steel segments) vs. the 2" polyethelene that was actually used is an incremental savings of (minus) -\$3.76 per foot or a saving of -\$564 for this portion of the project.

Therefore the total incremental cost of enlarging the size of the replacement pipe minus the savings of substituting the 2" polyethelene for the 2" coated steel was \$39,633.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE D.T.E.
D.T.E. 05-27

Date: August 24, 2005

Responsible: Danny C. Cote, General Manager

RR-DTE-167: With reference to the Dog Lane, Marshfield map, please indicate whether or not the pipe labeled 4-inch CS-61 is cathodically protected.

Response:

Yes, both the 4" coated steel 1961 main on Dog Lane and the 4" coated steel 1969 main on Pleasant St. are cathodically protected by a rectifier located on Pine St. in Marshfield (See RR-DTE-167 Attachment A, the highlighted entries).

The system was last tested on July 27th 2005 (See page 1 of Attachment A) by William Crowley of New England CP, and the testing verified that the system was protected. The Company's electronic records system indicates that these facilities have been under cathodic protection since at least 1987.

RR-DTE-167 (ATTACHMENT A)

Bay State Gas Company
D.T.E. 05-27
Attachment RR-DTE-167 (A)
Page 1 of 4New England CP, Inc.294 EAST STREET, WEST BRIDGEWATER, MASSACHUSETTS 02379
PHONE: (508) 588-6274 FAX: (508) 588-1630

COMPANY: Bay State Gas Company - Brockton Division

DATE: July 27, 2005

TESTER: William Crowley

PROJECT: Pine Street Rectifier, Marshfield
063-100 XF**RESULTS AND CONCLUSIONS:**

1. This rectifier system is protected.
2. The rectifier was operating at 2.76 amperes at 16.70 volts DC.

RECOMMENDATIONS:

1. Locate and raise (and bond) the following test stations:
V13 - Old Main Street at Pleasant Street

Program: r-cms800.p
Date: 08/16/2005
Req By: Joan Furtado

Bay State Gas Company
Compliance Management System
Technician Worksheet

Page: 2
Time: 11:46:33

Test Name: Corrosion Main

| Group ID | Main# Address | Pipe Size | Year | Length | WO# | Result | Repair | Test Date | Tested By |
|----------|--|-----------|------|--------|----------|-------------|--------|-----------|-----------|
| 063-100 | 19945 Bridge St Marshfield MA | 6 " | 1981 | 186 | 632233-1 | Protected | | | |
| 063-100 | 26359 Dog Ln Marshfield MA | 4 " | 1961 | 189 | 632754-1 | Unprotected | | 7/27/05 | WCC |
| 063-100 | 21008 Eames Way Marshfield MA | 3 " | 1960 | 2576 | 632234-1 | Protected | | | |
| 063-100 | 21442 Forest St Marshfield MA | 6 " | 1969 | 9934 | 632235-1 | Unprotected | | | |
| 063-100 | 24245 Forest St Inter P/W Off Marshfield M | 1 1/4 " | 1970 | 638 | 632251-1 | Protected | | | |
| 063-100 | 21608 Glen Rd Marshfield MA | 2 " | 1961 | 607 | 632232-1 | Unprotected | | | |
| 063-100 | 21899 Heather Hill Ln Marshfield MA | 2 " | 1966 | 935 | 632237-1 | Protected | | | |
| 063-100 | 21927 Heritage Hl Marshfield MA | 2 " | 1973 | 575 | 632238-1 | Unprotected | | | |
| 063-100 | 22000 Highland St Marshfield MA | 6 " | 1979 | 7473 | 632239-1 | Protected | | | |
| 063-100 | 22001 Highland St Marshfield MA | 2 " | 1967 | 1023 | 632240-1 | Unprotected | | | |
| 063-100 | 22371 Kimberly Ct Marshfield MA | 2 " | 1973 | 609 | 632241-1 | Protected | | | |
| 063-100 | 22713 Main St Inter furnac Marshfield MA | 6 " | 1970 | 1527 | 632242-1 | Unprotected | | | |

Bay State Gas Company
D.T.E. 05-27
Attachment RR-DTE-167 (A)
Page 2 of 4

Continued on next page...

Bay State Gas Company
Compliance Management System
Technician Worksheet

Program: r-cms800.p
Date: 08/16/2005
Req By: Joan Furtado

Test Name: Corrosion Main

| Group ID | Main# | Address | Pipe Size | Year | Length | WO# | Result | Repair | Test Date | Tested By |
|----------|-------|--------------------------------------|-----------|------|--------|----------|-------------|--------------|-----------|-----------|
| 063-100 | 22714 | Main St Inter furnace Marshfield MA | 6" | 1972 | 1223 | 632243-1 | Protected | | 7/27/05 | WCC |
| 063-100 | 22737 | Main St Inter furnace Marshfield MA | 6" | 1967 | 1816 | 632244-1 | Unprotected | | | |
| 063-100 | 23468 | Old Main S Marshfield MA | 6" | 1969 | 1256 | 632245-1 | Protected | RAEE T.S. | | |
| 063-100 | 23469 | Old Main S Marshfield MA | 6" | 1985 | 585 | 632259-1 | Unprotected | | | |
| 063-100 | 23872 | Pine St Marshfield MA | 4" | 1972 | 873 | 632246-1 | Protected | | | |
| 063-100 | 23959 | Pleasant St Marshfield MA | 4" | 1968 | 1512 | 632247-1 | Unprotected | | | |
| 063-100 | 23960 | Pleasant St Marshfield MA | 4" | 1969 | 1461 | 632248-1 | Protected | | | |
| 063-100 | 23993 | Pleasant St Marshfield MA | 4" | 1969 | 1219 | 632249-1 | Unprotected | | | |
| 063-100 | 23995 | Pleasant St Marshfield MA | 4" | 1961 | 2894 | 632236-1 | Protected | | | |
| 063-100 | 24320 | Pleasant St Inter P/W Off Marshfield | 1 1/2" | 1972 | 340 | 632252-1 | Unprotected | | | |
| 063-100 | 24151 | Prospect St Marshfield MA | 6" | 1985 | 2566 | 632250-1 | Protected | | | |
| 063-100 | 24528 | Riverside Cir Marshfield MA | 2" | 1963 | 857 | 632253-1 | Unprotected | | | |

Program: r-cms800.p
Date: 08/16/2005
Req By: Joan Furtado

Bay State Gas Company
Compliance Management System
Technician Worksheet

Page: 4
Time: 11:46:33

Test Name: Corrosion Main

| Group ID | Main# Address | Pipe Size | Year | Length | WO# | Result | Repair | Test Date | Tested By |
|----------|-----------------------------------|-----------|------|--------|----------|-------------|--------|-----------|-----------|
| 063-100 | 24529 Riverside Cir Marshfield MA | 2 " | 1966 | 432 | 632254-1 | Protected | | | |
| | | | | | | Unprotected | | 7/27/05 | WCC |
| 063-100 | 24983 Spring St Marshfield MA | 4 " | 1975 | 749 | 632255-1 | Protected | | | |
| | | | | | | Unprotected | | | |
| 063-100 | 24994 Spring St Marshfield MA | 6 " | 1984 | 7012 | 632256-1 | Protected | | | |
| | | | | | | Unprotected | | | |
| 063-100 | 25451 Union St Marshfield MA | 6 " | 1985 | 4599 | 632257-1 | Protected | | | |
| | | | | | | Unprotected | | | |
| 063-100 | 25468 Upland Rd Marshfield MA | 4 " | 1980 | 743 | 632258-1 | Protected | | | |
| | | | | | | Unprotected | | | |

Total Length =

56,409

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE USWA, AFL-CIO\CLC

D.T.E. 05-27

Date: August 24, 2005

Responsible: Stephen H. Bryant, President

SUPPLEMENTAL RESPONSE

RR-USWA 10: What was the cost of the online call-aid, and to upgrade the interactive voice-response system and the front-end call-switch? Also, include the cost of any other purchases or leases of technology at the Call Center for the purpose of improving service quality.

Response: Attachment RR-USWA-10 is a schedule that provides the original cost and net book value of all assets associated with the Springfield Call Center.

**SUPPLEMENTAL
RESPONSE:**

Attachment RR-USWA-10 was erroneously omitted from the Company's August 18, 2005 response, and is now included herein.

Springfield Call Center Total Investment as of 6/30/05

| | Yr. in Service | Book Cost | Depr Rate | Age | Net Book 6/30/2005 |
|--|-----------------------|-----------------------|------------------|------------|-------------------------------|
| 391 Office Equipment | 1998 | \$1,138,527.01 | 0.1074 | 7yr | \$282,582.41 |
| | 1999 | 92,924.26 | 0.1074 | 6yr | 33,043.87 |
| | 2000 | 159,766.93 | 0.1074 | 5yr | 73,972.09 |
| | 2001 | 12,815.36 | 0.1074 | 4yr | 7,309.89 |
| | 2002 | 1,930.00 | 0.1074 | 3yr | 1,308.15 |
| | | <u>\$1,405,963.56</u> | | | <u>\$398,216.41</u> |
| | | | | | |
| | Yr. in Service | Book Cost | Depr Rate | Age | Net Book 6/30/2005 |
| 397 Communications Equip | 1999 | \$618,480.00 | 0.0531 | 6yr. | \$421,432.26 |
| | 2003 | 89,805.31 | 0.0531 | 2yr. | 80,267.99 |
| | | <u>\$708,285.31</u> | | | <u>\$501,700.25</u> |
| | | | | | |
| | | Book Cost | | | Net Book 6/30/2005 |
| Total Investment Call Center Springfield | | <u>\$2,114,248.87</u> | | | <u>\$899,916.66</u> |

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE USWA, AFL-CIO\CLC

D.T.E. 05-27

Date: August 24, 2005

Responsible: Stephen H. Bryant, President

RR-USWA-11: Please submit all documents received, or to be received, by Mr. Bryant, regarding IBM's administration, or proposed administration, of the Smithfield, PA call center.

Response: At this time, Mr. Bryant has not received any documents regarding IBM's administration, or proposed administration, of the Smithfield, PA call center. If Mr. Bryant receives any documents regarding this issue prior to the close of the record in this docket, this response will be supplemented.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO
RECORD REQUESTS FROM THE USWA, AFL-CIO\CLC

D.T.E. 05-27

Date: August 24, 2005

Responsible: Stephen H. Bryant, President

RR-USWA-13: Please submit any information Mr. Bryant receives about the IBM or Vertex management of call centers at other companies that have chosen to outsource with either company.

Response: At this time, Mr. Bryant has not received any information regarding the IBM or Vertex management of call centers at other companies that have chosen to outsource with either company. If Mr. Bryant receives any information regarding this issue prior to the close of the record in this docket, this response will be supplemented.